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The Journal of Cutaneous Diseases

INCLUDING SYPHILIS

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A CASE OF UNDETERMINED TROPICAL ULCERATION INVOLVING THE NOSE, PHARYNX AND LARYNX, WITH HISTOLOGICAL FINDINGS

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AND SOME GENERAL CONSIDERATIONS REGARDING CLINICALLY SIMILAR CASES IN OCEANIA AND ELSE- WHERE.

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THE case, which forms the subject of the following report, was under the observation of my colleagues and myself at the City Hospital during a period of about eight months, and gave rise to a considerable degree of interest because of the unusual clinical picture which it presented. A diagnosis of syphilitic ulceration, chiefly from the appearance of the pharyngeal and laryngeal ulceration and cicatrization, was at first made and active anti-luetic medication was employed without in any way influencing the process. Mercury was given internally, by inunctions and hypodermatically, and iodide of potassium in increasing doses until the limit of tolerance in more than three hundred grains daily was reached. The failure of this treatment to favorably influence the condition strengthened the opinion held by several gentlemen, who saw the patient, that the ulceration was due to tuberculosis. Repeated examinations of smears and sections of excised tissue failed to demonstrate the presence of tubercle bacilli. Three guinea-pigs were inoculated with scrapings from the ulcerated surface. Two of them, inoculated in the peritoneal cavity, died within thirty-six hours of general septic infection, one showing a pronounced peritonitis and the other a double

pleurisy. The third guinea-pig, inoculated subcutaneously, showed no symptoms of general infection, but within three months a superficial ulceration appeared, extending from the root of the tail, where the inoculation was made, over the back and causing a loss of hair. The patient in the latter part of March, 1905, received two injections of tuberculin (two and four milligrammes, New York Board of Health) at intervals of forty-eight hours, without causing the slightest reaction. The absence of tubercle bacilli in the sections and tissue, with a negative result from the inoculations and a failure to respond to the tuberculin test, seemed to effectually dispose of the provisional diagnosis of tuberculosis.

It was then thought that the process might be a form of tropical ulceration, which was contracted while the patient resided in Panama. This view was strengthened by reading the report of Breda¹ on nasal ulcerations in Italian emigrants returning from Brazil, to which he gave the name *frambœsia brasiliana* or *boubas*. A short résumé of Breda's paper is given by Jeanselme,² of which the following is a partial translation:

"The affection is distinct from syphilis and yaws and begins by a bulla or pustule, which gives rise to a remarkably indolent ulceration with sharply defined infiltrated margins and a gray nodular base. It involves not only the skin, but even more frequently the mucous surfaces, especially the vault of the palate, the throat, the larynx and the trachea. The voice is profoundly modified early in the affection. Anti-syphilitic medication proved unavailing and no reaction took place after injections of Koch's tuberculin."

In some of its essential features, the malady described by Breda corresponded to the case under consideration and forcibly suggested that we had to do with a tropical ulceration of unknown nature, of which the clinical features had been recognized by the Italian observer. The strongest reasons for regarding the disease as a distinct entity were given me by Dr. Arnold, as the result of his experience in the Island of Guam, and, at my request, he kindly united with me in the preparation of this paper.

The patient, J. B., colored, aged forty-four, native of Panama, was admitted to the City Hospital in the autumn of 1904, with the diagnosis of lupus of the nose and larynx.

Family history—his parents were both dead; his father was shot in war and his mother died of old age. No history of insanity, tuberculosis or malignant disease was obtained.

Past history—occupation: he worked on a rubber plantation. He did not remember any childhood diseases. He suffered considerably from malaria while a resident in Panama, but had no periods of prolonged illness. Five years ago he had an attack of gonorrhœa with no complications. He had no urinary symptoms except some slight dribbling following expulsion of urine. Syphilitic infection was denied.

Present history—he came to the hospital complaining of nasal obstruction and ulceration, causing continual muco-purulent discharge, bleeding, pain and difficulty in breathing. It began six years ago when he was in Panama, the first symptoms being a very annoying and offensive muco-purulent discharge from his nose and a gradually increasing difficulty in breathing. For a period of six months he allowed it to go on as he was in the woods gathering rubber and no physician was at hand. Then he returned to Colon and immediately sought medical advice. A polyp was removed, but the operation instead of giving him relief, only seemed to aggravate the condition, for his symptoms increased and the process extended. A year later small ulcers appeared about the nasal orifices. The patient stated that about three years prior to the beginning of his trouble, he was engaged in gathering rubber, which necessitated climbing trees on which grow vines called in Spanish “peca béhuca,” because the milky juice burns the skin wherever it touches. The English translation is “Bay Sore.” By some people this sore is credited to the water drunk. At any rate, he insisted that when the hatchet cut the vine the expressed juice caused a peculiar raised somewhat circular sore with a central root (?). Of these he had two which appeared simultaneously, the one the size of half a dollar on the radial side of the left forearm just above the wrist, the other, about two and one-half by three inches in diameter, on the back of the right forearm just below the elbow. They lasted about three months and were eventually cured by an ointment of unknown nature, which, according to the patient, burned somewhat and took the “water and the roots” out of the sore. They showed no tendency to recur, and although he continued this occupation for years, he had no more of them. He mentioned that during the years 1876-1877 these sores were very common among the inhabitants of Costa Rico and the coast and the people often had ulcers about their nostrils, with resulting deformity of the nose.

Physical examination—colored, rather emaciated. Nose very broad and ulcerated at external meatus; tip sunken.

Lungs—dullness over both apices, more marked over right. Percussion was not very good over anterior or posterior surfaces of chest. Vocal fremitus poor. Vesicular murmurs good and full, but prolonged and high pitched at both apices, especially at right apex behind. At right apex there were some crepitant and many moist and sibilant rales. At left apex and over rest of chest there were many fine and coarse mucous rales. Voice sounds loud over right apex.

Heart—precordial dullness from mid-sterum to within nipple line. Apex not seen; felt in fifth space within nipple line, not very forcible. A slight systolic murmur at apex was transmitted a little to the left. The other sounds were muffled, except the aortic which was accentuated. The arteries were thick and stiff. Pulse was small and feeble.

Liver—dullness from the fifth space to just below costal margin, where edge was felt one finger lower down.

Spleen not felt through abdomen.

Eyes—pupils equal, reacting to light and accommodation. Sclera yellowish-white and injected. Just below right inner canthus an ulcerated patch one by one and one-half centimetres; borders raised, center necrotic, a bloody serum exuding on pressure.

Nose—very broad at tip with great ulceration around edges of nostrils, involving a part of the upper lip (Plate I); septum gone and the entire anterior nares one necrotic sloughing mass with hardly any recognizable land-marks.

Mouth—pharynx very pale; uvula gone; soft palate presented a worm-eaten appearance.

Larynx and pharynx showed old cicatricial contractures with here and there ulcerating areas. The cords were rough and reddened and did not approximate. The arytenoid bodies were red and enlarged. The tongue was atrophied at the base.

Arms—there was an extensive but not very deep scar on the left forearm, and a scar from a burn on the right arm near the wrist—pigmented but not extensively contractile. Numerous tattoo marks on both arms.

Legs—knee jerks and plantar reflexes were present. Some old scars, white and pigmented, on anterior surfaces.

Urine—specific gravity 1022, alkaline; no albumen, sugar or casts.

From September 28 to October 19, his temperature varied from 98.2° to 101.2°, the mean being 99.5°. He was discharged on the

latter date, but returned on November 7. On that day he had a severe chill which lasted twenty minutes and his temperature rose to 103.8° . Between that date and December 17, on other days there was a fluctuation of 1° - $1\frac{1}{2}^{\circ}$. He was discharged again and returned on March 22, when he had another chill lasting about five minutes, followed by a temperature of 101.8° . From then until April 8 there was a variation between 98° and 99.6° .

The most striking feature of the foregoing history was the involvement of the mucous membranes and underlying tissues of the nose, pharynx and larynx by a chronic ulcerative process, apparently distinct from tuberculosis and syphilis, which began in the nose and later extended to the larynx and possibly to the trachea or even to the bronchi. The photograph (Plate I) shows only the later extension of the disease to the anterior nares, upper lip, the right nasal duct and lachrymal sac. The edge of the ulcer on the upper lip was marked by sharply defined margins and elevated edges and showed only slight enlargement during the time the patient was in the hospital. Unfortunately, he demanded his discharge and passed from observation so that the ultimate result of the disease could not be determined. As to the prognosis of the affection, the literature of carefully observed cases is too scanty to permit us to draw very definite conclusions. Among the patients under Breda's observation, although the skin lesions healed, new foci recurred for years on the mucous surfaces of the nose and upper air passages. The tendency of the disease, too, as shown by the cases seen in Guam, is to progressive involvement of new areas of skin and mucous membrane, to loss of vision from destruction of the eyes and finally, to complete obliteration of the features.

While the clinical picture presented some striking features of syphilis, the long duration of the disease in a limited area, and its failure to respond to anti-syphilitic remedies, would seem to exclude that infection. The involvement of the nasal duct by extension of intra-nasal syphilis, though seen once in the writer's experience, is certainly an unusual occurrence in that disease.

Histology.—The tissue examined microscopically consisted of two pieces removed with a cutaneous punch at the junction of the anterior nares and lip. One was from the advancing margin of the lesion, the other from the central and older part. They were fixed in alcohol and Müller-Formol, respectively, embedded in paraffin and cut serially. Tissue stains employed were Böhmer's hæmatoxylin

with orange G and with eosin, Unna's polychrome-methylene blue and glycerin ether, methylene blue and eosin, Van Gieson, Weigert, Unna-Taenzer orcein and Unna's collagen stains. To demonstrate possible organisms the following were used:

The Gram method, which revealed only a few positive cocci: the Ziehl-Neelson, the Gabbet and the Koch-Ehrlich technic for tubercle bacilli, with negative results: carbol-thionin, Nicollé, likewise proved negative. In connection with this stain, it might be mentioned that a misleading precipitate occurred in the form of rod-like bodies bearing a close resemblance to organisms, which was only correctly interpreted after making control preparations of other lesions. Fungous or protozoan forms were not demonstrable in any of the sections examined with that end in view.

In the sections from the diseased edge one-half of the surface was ulcerated, the other showed a proliferated epidermis. The former was covered with blood and fibrin, underneath which there was a dense cellular infiltration extending to the muscle tissue of the lip (Plate III). The cells consisted largely of lymphocytes of the small variety. Only a few polynuclear leucocytes were present and plasma cells varied in number throughout the series. They were especially numerous in the deeper parts of the cutis about the vessels in the neighborhood of the muscles. The same may be said of the mast cells which also were larger than ordinarily and contained coarser and a strikingly greater number of granules. Numerous granules were free in the tissue and at some distance from the cell. In addition, there were epithelioid cells and hyperplastic fibroblasts. The giant cells were irregularly distributed; in some fields one or more were found close to the epidermis, again they were in the reticular layer and even in the subcorium. They were large, with one or more rows of peripheral nuclei and the origin of some could be traced, serially, to the blood vessels. While the rôle of the latter in true giant cell formation is disputed, and Baumgarten maintains that such appearances merely result from sections through thrombosed vessels, it is conceded that a minute examination of some of the cells strongly suggested the latter; but others, apparently, were produced by a proliferation and fusion of the endothelial cells, while still others defied all effort to establish a genetic relationship with any of the elements present. Whether they are true giant cells or not, their likeness in some instances to those of other granulomata was so close that it was impossible to make the distinction. Search for foreign bodies was futile, and as noted above, no

micro-organism excepting a few cocci were brought to view with the stains enumerated.

The reticulum of this granulation tissue was very delicate in places and only here and there small remnants of elastic and collagenous tissue remained. There was no cheesy degeneration. Below where the cellular invasion was less marked, the fibrous and muscular structures were normal. Throughout the area there were many blood vessels, newly formed and old. The larger ones were distended, their walls showing more or less inflammatory changes, while the majority of the smaller ones were in a state of partial or complete obliteration, owing to a thickening of their intima. Of the lymph spaces, many had entirely disappeared, others were dilated or filled with proliferated endothelium. There was also evidence of hæmorrhage in the tissue.

The appendages presented no abnormality beyond a dilatation of the coil glands.

In the deepest layers of the hypoderm, surrounded by extravasated blood, was a small area whose component elements consisted mainly of lymphocytes with some fibroblasts and plasma cells in a fine reticulum. The vessels in this situation were narrowed or occluded by a proliferated endothelium.

The epidermis at one end was divested of its horny covering; at the other toward the ulcerated region a parakeratosis and acanthosis existed, with a tendency for the pegs to lengthen, widen and to form an anastomosing network (Plate IV). Some of the prickle cells were vacuolated and leucocytes had invaded the various layers.

The sections from the older portion of the lesion agreed in their essential features with those from the margin. There was, however, a greater vascularity, many dilated and filled vessels occupying the papillary and subpapillary layers and the infiltration was more nodular in its character. Below the diffuse superficial zone there were three distinct foci, which did not differ in their architecture from the others except that they contained more giant cells (Plate V). The intact epidermis was also the seat of an œdema and the interpapillary processes passed as long fine strands into the underlying structure and gradually became lost among the foreign cells.

In June the guinea pig developed a folliculitis which first appeared near the site of inoculation and spread up the back to his neck. The hairs fell out, some of the lesions became confluent and three ulcerated areas resulted. The course of the affection was about four weeks, during which time the animal seemed entirely well; there was no

adenopathy and no loss in weight. A piece of tissue excised showed a rather simple superficial ulceration covered by a crust of blood and detritus. The infiltration in the corium below was made up chiefly of polynuclear leucocytes and lymphocytes (Plate VI). Of the various bacterial stains, only Gram showed a few cocci in the crust. Scrapings from under the crust gave no growth on ordinary media.

With so little evidence it is difficult to say, if the condition was a parasitic one, whether the pig became infected by chance after the inoculation, or whether the causative organism was introduced at the time of the injection. If the latter, the incubation period was a long one—over two months. Healing was spontaneous and at present not a vestige of the disease remains. The hairs have all come in again except over two of the deeper ulcerated areas which are replaced by scar tissue.

Summary:—The lesion was a granuloma whose nature could not be determined by the methods employed.

Briefly, it could be differentiated from others of its class, like blastomycosis, actinomycosis, rhinoscleroma and leprosy by the absence of their specific micro-organisms. From mycosis fungoides by the character of the infiltrate and the absence of fragmentation. The histological picture might readily be mistaken for tuberculosis, as the giant cells were numerous with nuclei arranged peripherally, and as is often seen in that type of inflammation, many independent foci containing three or four such cells were encountered deep in the corium. The epidermic hyperplasia was such as is met with in hypertrophic lupus and other forms of skin tuberculosis; but as it is seen also in blastomycetic dermatitis and other cutaneous inflammations, its presence is of slight diagnostic importance. The existence of a tuberculosis, however, would seem to be conclusively disproved by the failure of the inoculation and tuberculin tests, as well as by the absence of bacilli in the secretions and sections.

It is also probable that the affection was distinct from yaws, as such vascular changes, giant cells, small number of leucocytes and great disintegration of fibrous stroma are not characteristic of the latter. It is not unlikely that many of the so-called tertiary manifestations of yaws are in reality not due to that disease, but to another infection identical with the one under consideration.

It was difficult to exclude syphilis microscopically, but the presence of many giant cells and the less definite perivascular sheathing might be considered in favor of another diagnosis.

SOME GENERAL CONSIDERATIONS REGARDING CLINICALLY SIMILAR CASES
IN OCEANIA AND ELSEWHERE.

This case is, I believe, clinically indistinguishable from an affection of the naso-pharynx which I found very prevalent in Guam in 1902. I think it probable that it is met with more frequently there than elsewhere; and further, as I shall attempt to show, that it is sharply delimited upon neighboring islands. It is altogether likely that it is confined also to the tropics. Trusting to published cases alone, it seems to occur in tropical America (Brazil, Chili, etc.), in the South Seas and in Ceylon. Spain may have disseminated it; for example, quite the majority of the copper coins current in Guam are from Chili and Peru.

I saw about thirty cases of this disease while I was familiarizing myself with the conditions there in the capacity of health officer of Guam and senior surgeon of the U. S. Naval Station. The whole number of cases upon the island is estimated at from one hundred to five hundred, or from one to five per cent. of the entire native population. I studied none of them exhaustively, owing, first, to the pressure of other duties and, afterwards, to illness for which I was sent away and I did not return. Clinically, however, I thought it competent to exclude yaws (whose existence there had not been emphasized), and syphilis—as it is known amongst the white races.

The usual history is that of a slight pharyngeal, tonsillar or nasal ulceration. which is more often noticeable from its discharge than from its painfulness, hæmorrhage or other active symptoms. Constitutional involvement seems well-nigh absent throughout most cases. This ulceration spreads under superficial sloughs, which may disappear from time to time soon to re-form, the process extending by contiguity through the pharynx and nose. The palate and nasal septum soon disappear. The larynx is not often involved and usually escapes without notable damage. The eyes are often affected, being reached by extensions through the lachrymal ducts, and after the eyeballs and all of the secreting structures of the orbits are destroyed, the sockets may be filled up with granulation tissue and entirely cicatrized. I saw no cases of involvement of the middle ear, and the ulcerations of the posterior pharyngeal wall were slight and quite temporary. Through its course the tongue, cheeks and lips are very little involved, although the entire nose is often removed. Extensive destructive ulceration elsewhere is by no means common in these

patients, they being, almost without exception, in the ordinary health of their class—certainly in no sense cachectic. The process may be rapid, although it seems to be apt to extend intermittently until after the destruction of the median and less vascular tissues of the nasopharynx. Pain is not a prominent symptom and the disability depends, of course, upon the extent of the ulceration. Many distressing sequelæ, such as lachrymal fistulæ, keratitis, etc., are produced; but the tendency is always towards self-limitation. I heard of no deaths ascribed to it.

Its association in families suggested contagiousness, but this is, at least, not of high degree. Virtually all ages were presented by the patients that I saw and no notable predominance in sex existed. The deformity is often of terrible extent, which acts in this well-favored simple race toward such concealment of the affliction as is possible. The disability involved phonation always, and usually, the senses of smell and taste—and perhaps vision.

These observations were, in effect, all confirmed by my successor in Guam—Surgeon James F. Leys,³ U. S. Navy.

Daniels⁴ noted its existence in Fiji; and it is figured—amongst yaws, syphilis and probably other affections—in natives of Ceylon.⁵ Prof. Achille Breda,⁶ of the Royal University of Padua, has made studies of allied affections presented by Italian emigrants returned to the neighborhood of Padua from Brazil. The illustrations of both of his papers show conditions somewhat different from the clinical appearances presented by Dr. Fordyce's patient and the histological findings are also somewhat dissimilar. Breda claims especially to have noted the indolence of the lesions of his cases and accentuates the priority of his record of the lesions of the mucosæ. The inappropriateness of his name for the conditions that he studied—Brazilian frambæsia—will be considered later; but his alternate designation of *boubas*, like *parangi*, forces confusion with syphilis, which, for my part, I am entirely willing to trust to Prof. Breda clinically to exclude. Sir William Kynsey⁷ has pointed out the grouping together of most diverse conditions in The New Sydenham Society *Atlas of Clinical Medicine*; has explained that *parangi* is the same as the Ceylonese term *feringee*, which was the designation in Ceylon of the Portuguese, and has shown that this name among the natives of Ceylon includes syphilis and much besides. The colored plate in the *Atlas* from his report on *parangi* in Ceylon is reproduced in Plate II, Fig. 1. It represents accurately the clinical picture often seen in

Guam. Plate II. Fig. 2. shows a more advanced stage of the disease as seen in Guam.

It is perhaps exceptional for a visitor to Guam to escape seeing one of these pathetic creatures, notwithstanding the fact that such visitors are usually on shore there for a very short time. They are impelled almost unhesitatingly to pronounce these apparitions lepers; and, if these mistakes should be corrected, no effort will avail to upset the alternative conclusion that it is the result of syphilis. Even well-informed professional men jump thus at conclusions; hence, probably a part of the confusion with which the affection is surrounded. Undoubtedly the disease would have been more closely studied if such a number of horribly afflicted persons were to be seen in any of the more frequently visited tropical islands, such as Hawaii, Tahiti or the West Indies.

(See in this connection, the impressions of a young American woman who resided for a time in Guam, volunteering to teach there: *Johns Hopkins Nurses' Alumnae Magazine*, May, 1905).

Its absence from the other islands of the Ladrone (or Mariana) group—especially from Ponape is in striking contrast to its prevalence in Guam. I had this fact first from two Spanish Capuchin friars, both of whom I found to be good lay observers of medical matters. They came to Guam from Ponape in 1901. But I was most interested to find that Dr. R. Koch confirms⁸ their observations, adding the evidence of Dr. Guschner, colonial surgeon at Ponape. Koch considered that numerous cases that were submitted to him and to the other members of the German Malaria Commission in the Caroline Islands as examples of lupus, of leprosy and syphilis, were yaws! Of course, it is inconceivable that such authorities as composed that commission should not recognize frank lupus, or leprosy, or syphilis (as syphilis is figured in temperate climates); and it is equally inconceivable that no typical cases of yaws should have been brought before them. Therefore, the inference is plain that the comprehensiveness of the conclusion expressed is due to slight acquaintance with yaws as well as to a well-nigh universal willingness to consider it a serious constitutional disorder of much the same formidableness as syphilis. Undoubtedly this commission saw cases such as have been described. Yet, as shown above, it recognized the absence of such cases from Ponape where yaws is endemic and almost as prevalent as anywhere else.

I have often shown well marked cases of yaws to non-professional

persons, in order to observe what their descriptions of the tubercles would be; and I have never yet observed anyone to omit to compare them to raspberries, whence, of course, *frambæsia*. Charlouis⁹ hoped vainly to lessen confusion in a locality where the pathological condition that occupies us seems to have been non-existent by replacing the opposite term *frambæsia* with a histologically descriptive and a locative name. Jeanselme's personal investigations in Cochin China and Annam (reported at the meeting of the British Medical Association in July, 1905), and Cannac's¹⁰ and Montel's¹¹ admirable and exact clinical contributions regarding yaws, appear to establish this disease as independent of syphilis. Doubtless, as A. Le Dentu says,¹² the alleged sequels of yaws and their relations to syphilis, may not be convincingly discussed until the whole question of tropical syphilis is elucidated; and I think that it may well be admitted that this great field has been up to the present, if not entirely untilled, but little more than scratched. If, however, it be admissible to anticipate conclusions from facts already available regarding trypanosomiasis and from work now in progress relating to syphilis, it would appear that other diseases than syphilis and yaws will be found responsible for various tropical ulcers which heretofore have been endlessly confused under geographical names.

As Leys suggests (*loc. cit.*), Guam affords an inviting field for original investigation in line with the case above reported. He observed more than forty cases similar to this one. They were all clinically distinguishable, as we have seen that the German Malaria Commission found, from leprosy, syphilis and tuberculosis; and his report includes exclusive reasoning that places it apart from yaws and establishes it as an affection *sui generis*.

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PLATE I—To Illustrate Dr. John A. Fordyce's and Dr. W. F. Arnold's Article.



THE JOURNAL OF CUTANEOUS DISEASES, January, 1906.

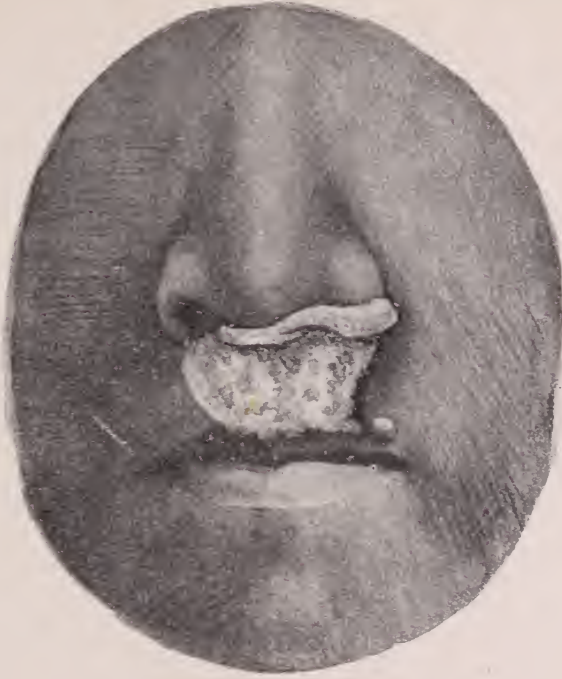


FIG. 1.



FIG. 2

PLATE III—To Illustrate Dr. John A. Fordyce's and Dr. W. F. Arnold's Article.

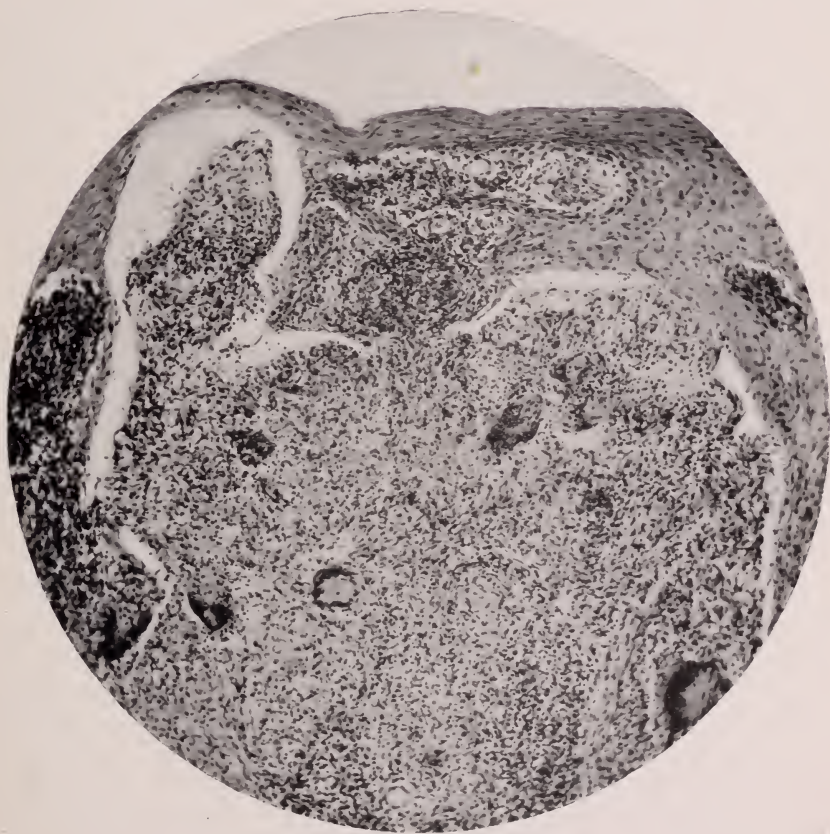


PLATE IV—To Illustrate Dr. John A. Fordyce's and Dr. W. F. Arnold's Article.

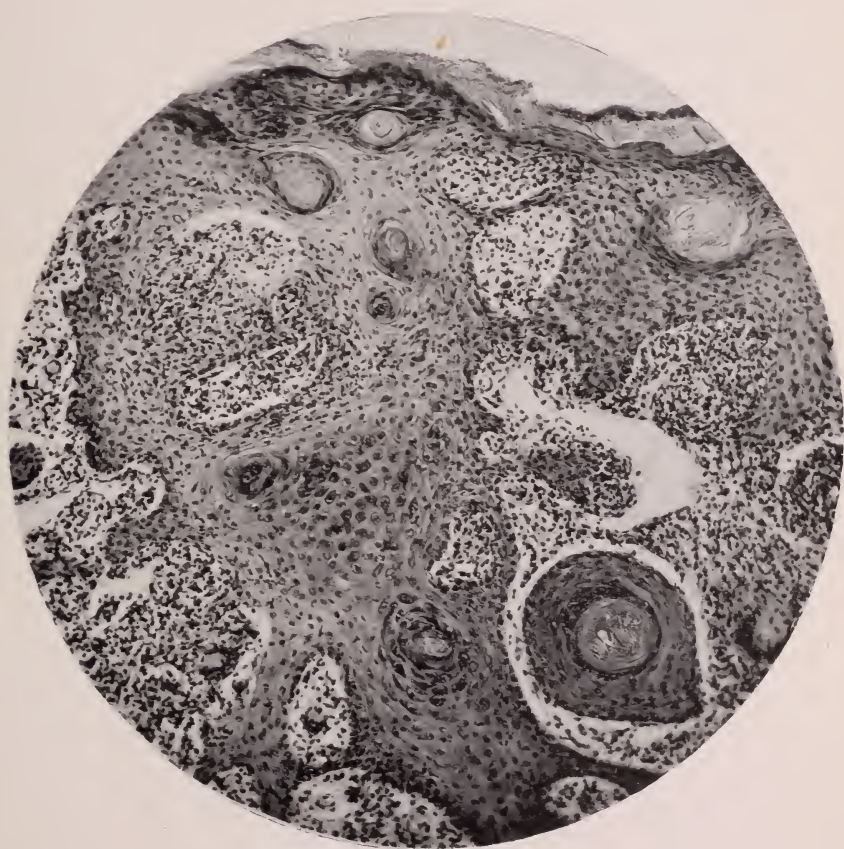


PLATE V—To Illustrate Dr. John A. Fordyce's and Dr. W. F. Arnold's Article.

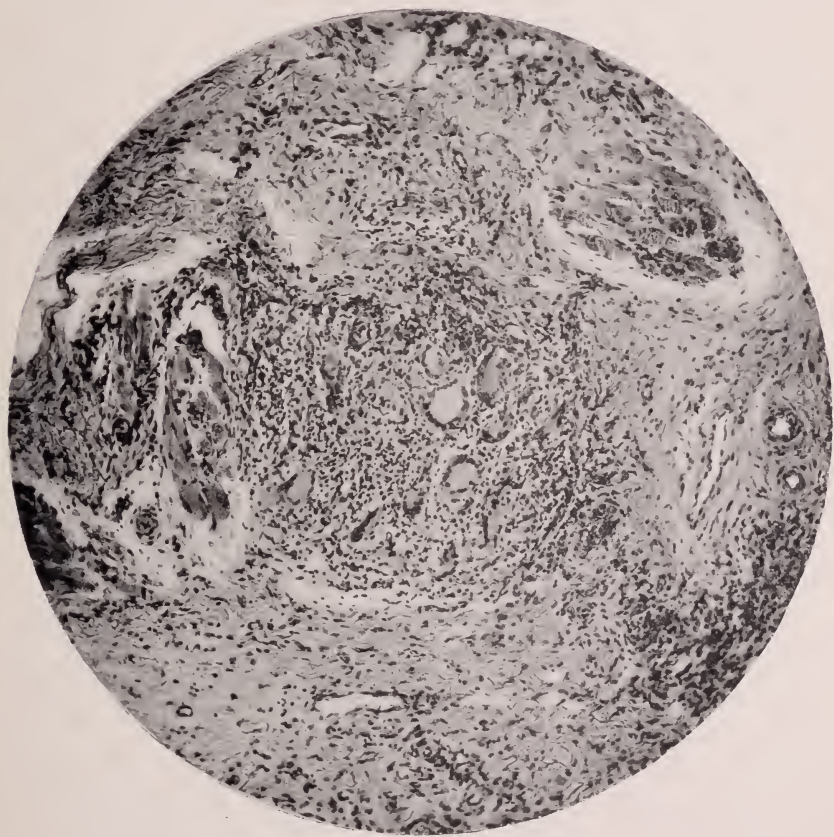
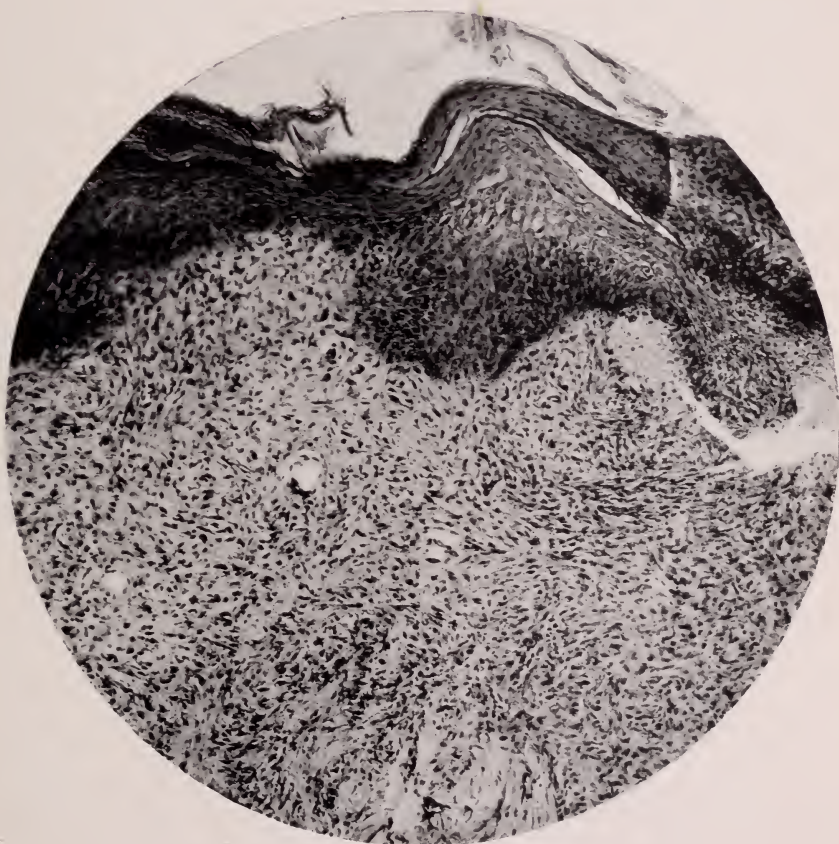


PLATE VI—To Illustrate Dr. John A. Fordyce's and Dr. W. F. Arnold's Article.



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DESCRIPTION OF PLATES.

- Plate I. Photograph of a negro, a native of Panama, showing ulceration involving the upper lip, the anterior nares and the septum. Also an infection of the right nasal duct. The tip of the nose is sunken from destruction of the anterior part of the septum.
- Plate II. Fig. 1. Condition like that shown in Plate 1. This illustration is reproduced from The New Sydenham Society Atlas of Illustration of Clinical Medicine, Surgery and Pathology. Fasciculus I and II of new series. Framboesial Syphilis (Yaws and Parangi). Plate LXXXVIII.
- Plate II. Fig. 2. Illustration taken in Guam, showing a more advanced stage of the same disease.
- Plate III. Spencer $\frac{1}{2}$ inch, Zeiss Compensation Ocular 4. Showing dense infiltration with numerous giant cells, extending deep into the derma.
- Plate IV. Spencer $\frac{1}{2}$ inch, Zeiss Compensation Ocular 4. Hyperplasia and down-growth of the epidermis, with cellular infiltration of the corium.
- Plate V. Spencer $\frac{1}{2}$ inch, Zeiss Compensation Ocular 4. A sharply circumscribed inflammatory focus with numerous giant cells, in the deeper layers of the corium.
- Plate VI. Spencer $\frac{1}{2}$ inch, Zeiss Compensation Ocular 4. Section of skin of inoculated guinea pig, showing infiltration made up chiefly of polynuclear leucocytes.

A CASE OF ACUTE SEPTIC PEMPHIGUS.*

By GEO. W. CRARY, M.D., New York.

THE patient, an infant, born after an induced labor lasting seventeen hours and thirteen minutes, presented at birth a normal appearance, with a total length of 54 cm., and a weight of 3550 gm. It had occupied the L. O. A. position. The mother, immediately previous to the beginning of the labor, had a temperature of 98 F., and one hour after its completion, her temperature was 98.4 F., and her pulse 118. The perineum required and immediately received slight repair, and her convalescence was without further incident.

Upon the third day after birth, the temperature of the infant suddenly rose to 104 F. and rapidly fell to a little below normal (vide temperature chart, Fig. 1). Physical examination made of the chest and abdomen at this time elicited only negative signs, and the umbilical stump appeared to be perfectly healthy.

Two days later, upon the fifth day after birth, an eruption of vesicles appeared upon the left cheek, grouped about the angle of the mouth. As there had developed in the same ward, a few days previously in a new born infant, an attack of impetigo contagiosa, I rather assumed this to be another case of the same disease. Treatment for impetigo contagiosa, was, however, followed by no improvement, and it was noted that after rupture of the vesicles, which took place early, the superficial crusts so characteristic of that disease¹ were not formed, but that the area occupied presented a raw denuded surface. The eruption of vesicles extended down over the face, neck and chest, and bullæ even appeared upon the arms, for after the first appearance of the vesicles about the mouth, those of each succeeding crop, were of larger size than those which had appeared before. These bullæ were very flacid, endured only a very short time, and after their rupture there were left behind large areas of skin denuded of the horny layer. This process continued until the lower face, the neck, anterior chest wall, and the anterior surface of the arms (vide photograph, Fig. 2 taken a few hours after death) were in-

* This case occurred in the service of Prof. GEORGE T. ELLIOT at the New York Lying-In Hospital.

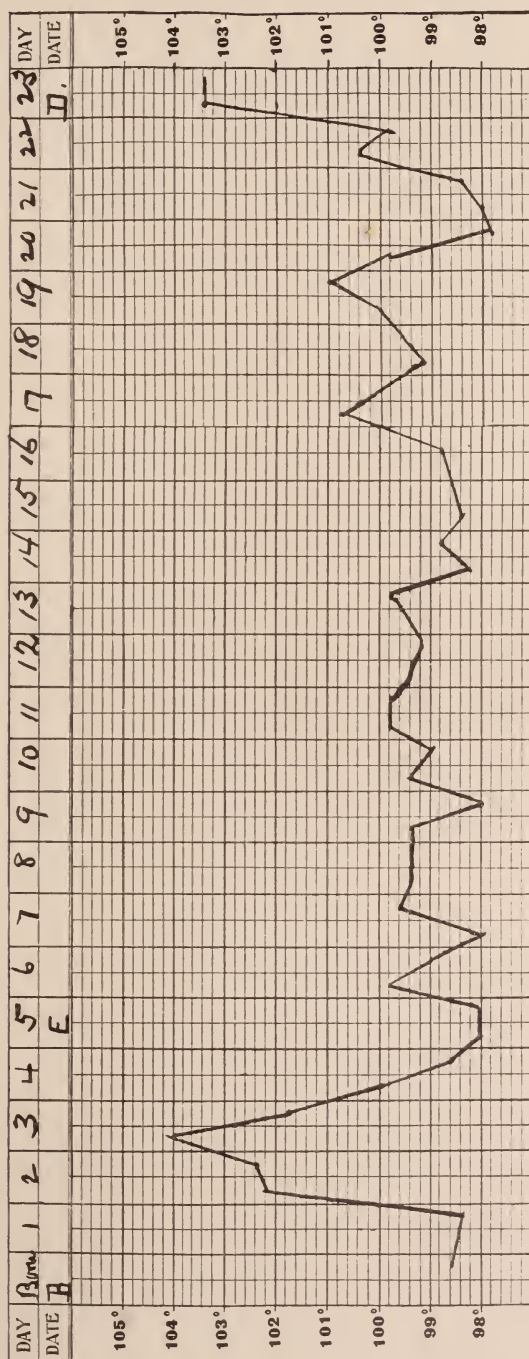


FIG. 1

volved. Death took place upon the twenty-third day of the life of the babe, twenty days after the initial rise of temperature, and eighteen days after the first appearance of the skin lesion. After the initial rise to 104 F., and the fall to subnormal, the temperature continued irregularly, though only moderately, high, for even in the ante-mortem rise to 103.4 F. it did not reach the high temperature of the onset.

The autopsy was performed by Doctor Wollstein, the chief of the pathological department of the hospital, who reported as follows: Lungs, no pleurisy, small areas of broncho-pneumonia in both apices and along the posterior border of both lower lobes, no atelectasis, marked congestion; heart, normal with foramen ovale closed; peritoneum, normal, though abdomen somewhat distended; lymph nodes and mesenterics, normal; spleen, normal in size, but congested; intestines, normal; liver, three-quarters of an inch below free border of ribs, extremely fatty in gross appearance, and microscopically, extreme fatty infiltration of liver cells in all parts of the lobules, the fat droplets being largest in the peripheral cells, congestion of intra-lobular and of the interlobular vessels marked, the latter in the lesser degree, but no connective tissue increase; kidneys, large, soft, red with free capsule, uric acid infarctions, parenchymatous degeneration, tubular epithelium degenerated in cortical tubes only, vessels normal, epithelium covering the apex of the pyramid, normal, no connective tissue increase; round ligament of the liver, normal and contains blood only, no pus; supra renals, normal; umbilicus, normal, but in a fusiform dilatation of the partially obliterated left hypogastric artery, was discovered a circumscribed collection of pus to the amount of about one-half drachm. This abscess was about one inch from the umbilicus, while the remaining portion of the left and the whole of the right hypogastric artery, contained only blood and no pus. Cultures from the blood in the vessels of the general circulation, gave the staphylococcus pyogenes aureus; from the liver, and from the spleen, the staphylococcus aureus and albus; and from the pus in the left hypogastric artery, also the staphylococcus aureus and albus.

Clinically, this case corresponds to the pemphigus acutus of Kaposi,³ or even more closely to the pemphigus acutus neonatorum of Stelwagon,⁵ and of Jarish.⁶ Stelwagon would seem to consider the two terms as synonyms, and Jessner⁴ apparently holds the same opinion. Acute pemphigus due to septic intoxication is undoubtedly most common in very young infants, but it is not a disease peculiar to the very young. Howe⁸ reported ten cases of "Bullous Der-

matitis," occurring from four to six weeks after vaccination against variola, all in adults, in which the temperatures ranged from 100.5 F. to 103.6 F., and of which ten cases, five succumbed. In the one autopsy which he reports, changes were found similar to those found in cases of fatal septicæmia. In one other of his cases, in which cultures were made, the Löffler's bacillus was found. These cases correspond closely to the one here reported as acute septic pemphigus, and while "Bullous Dermatitis" is a term free from the confusion incident upon the use of that of pemphigus, it has been used to designate a number of different skin lesions having bullæ as one of the features. Bowen⁷ reports seven cases of bullous dermatitis following vaccination, which he himself later¹⁸ identifies with dermatitis herpetiformis. The pemphigus acutus contagiosus neonatorum of Kaposi has been, on the one hand confused with impetigo contagiosa (8, p. 507), and upon the other, with dermatitis exfoliativa neonatorum (8, p. 595), and it would seem most undesirable to give a specific name to a disease which occurs at all ages when this same disease occurs in the new-born, especially as when it does so occur it presents the same objective and subjective manifestations, even to the lethal outcome, in adults and in the new-born, and if the disease is less fatal in the one than in the other, it is rather because of the weaker power of resistance upon the part of the infant, than from any essential peculiarity in the variety of the disease itself. Johnston¹⁹ has suggested "septic pemphigus," but it is not known how far other forms of pemphigus may be due to some form of septic infection; why not then acute septic pemphigus, to designate this well defined group, with the rapid onset, the high temperatures, the autopsy findings, and frequent fatal ending.

The accompanying drawing (Fig. 3) made with a Leitz Zeichnocular, and a 4.3 mm. objective, shows the enormous congestion of the blood vessels, with the diapedesis into the cutis and subcutaneous tissue, but especially marked in the deep layers of the skin. The specimen was taken from about the mid-sternal region, and it seems to have lost the horny layer completely, but to have retained the malpighian layer, showing that this latter layer has not been lifted up to assist in the formation of the roof of a bulla. A section taken from this same region stained by the Gram method, and examined under a Homog. Immers. 2mm. lens shows a great number of diplococci. As no culture experiments were made at or before the death of the patient, these cannot be identified with the diplococcus considered to be specific by Demme,²⁰ and perhaps also found by Felsenthal,¹¹ in

two cases and by Whipple.¹² For the same reason as given above, it cannot be stated whether or not these diplococci are a form of aureus or albus, in a state of active multiplication by division. Elmquist¹⁰ isolated a micro-organism, probably identical with the staphylococcus pyogenes aureus, Felsenthal,¹¹ also obtained the staphylococcus, and Demme,²⁰ as already mentioned, obtained a diplococcus, which he believed to be specific. The bacillus coli has been found alone in the bullæ.¹⁷ Howe as stated above found the Löffler's bacillus.⁸ I believe my own case to have been one of staphylococcus septicæmia, and though as I have expressly stated, the diplococcus, being dead and stained when I found it, could not be identified with the staphylococcus pyogenes aureus, I believe it to be such in view of the cultures obtained from the blood and pus, and from the liver and spleen.

The *infection atrium* in any individual case, may result from any one of the numberless methods of introducing infection into the body, and requires some solution of continuity, however minute, in skin or mucous membrane, but the effort to connect this disease with some one form of wound infliction, or some one method of wound infection, is pretty sure to lead very far afield. The vaccination lancet, the scratch of a cat, a butcher's knife, the bite of a horse, may have caused the wound, and the infection may have taken place at the time of the infliction of the original injury or any time between that and its complete closure. Then again it must never be forgotten, that a cat scratch received one day does not render a patient immune to infection through atria far removed from the scratch, both in time and part of the body. Emphasis is laid upon this position because of a case with such a diagnosis as "Acute pemphigus in a butcher's boy,"¹⁷ and because in the attempt to establish some peculiar connection between this disease and domestic animals, a cat scratch is made to answer as the source of infection, even with a five weeks' interval between the injury and the appearance of the eruption, and in spite of the fact that the scratch was poulticed.¹² The disease is now fairly well established as of septic origin, and many authors and reporters could be cited to establish this position, but that there is now but little doubt upon the subject. The report by Staub²¹ has especial interest in that he found it associated with puerperal fever. In the fatal case reported by Rose and Robertson¹⁴ both clinical history and autopsy findings point to sepsis, as do also the clinical histories of the cases reported by Ravogli,¹⁵ and by Schamberg and Keech.¹⁶



FIG. 2

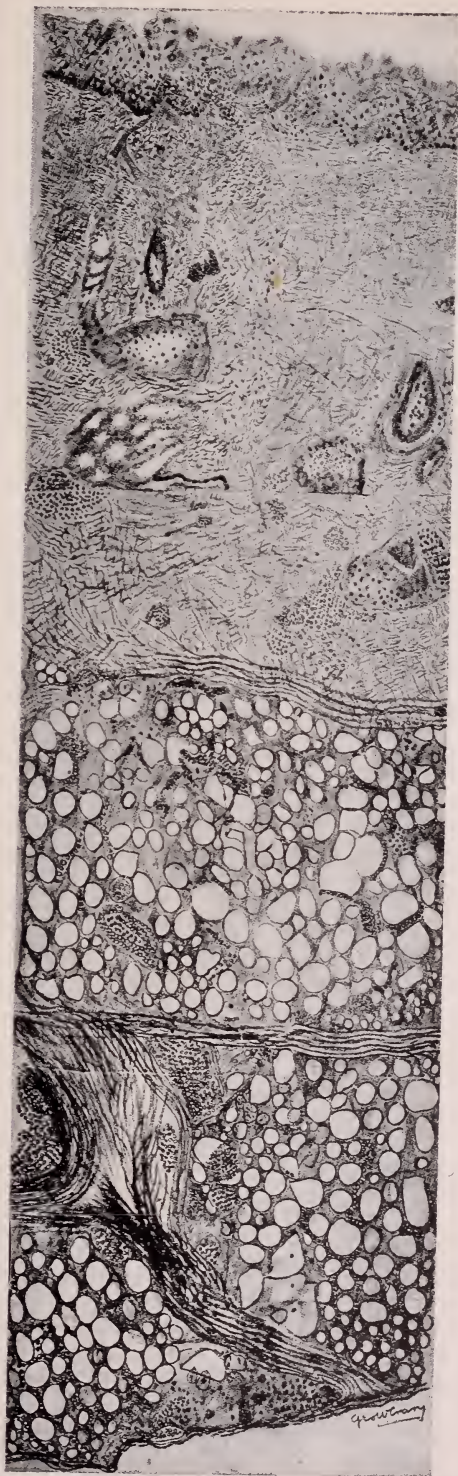


FIG. 3

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TUBERCULOSIS VERRUCOSA CUTIS: REPORT OF A CASE.

By J. B. SHELMIRE, M.D., Dallas, Texas.

Read before the North Texas Medical Association at Denton, Texas, June 21, 1905.

TUBERCULOSIS of the skin in any of its varieties is seldom seen in Texas. During nine years' practice in the State, the case I shall report is the only one coming under my observation. Upon inquiry among professional friends of long and large experience, I find few who have encountered the disease. The verrucous form is not often met with even in places where tuberculosis of the skin is not uncommon. These facts are sufficient excuse for the report of a case to this Association. The patient, the subject of this report, is a negress now fifteen years old. She came under my treatment in March, 1904. Her father gave the following history:

"Father and mother over fifty years of age. Both in good health. She is the third of twelve children, all living except two who died of acute affections in early childhood. None of the other children has ever had any skin disease or serious illness. This child showed no evidence of disease until she was four years old. When about that age, a lump came near the angle of left jaw. This spread forward along the body of the jaw, and after about two years broke under the chin and discharged pus. The skin was not affected up to this time. Soon after the discharge commenced, the skin became diseased, the lesion spreading in all directions. Seven years ago a lump came on left forearm, flexor surface about the junction of the upper and middle third. After some months this broke and discharged a thick, cheesy pus. The skin here also became involved. No lesions have appeared on other parts of body. After her fourth year, has always been delicate, as compared with the other children. Menstruation has not taken place, and she is a year older than the other children were when this process started.

In March, 1904, when she was brought to me the eruption covered the areas shown in the accompanying photographs. The entire surface under the lower jaw was covered by thin scar tissue. Almost the entire left side of face and neck, a good portion of the right side of face, and the chin were covered by a rough, warty growth. Heavy, dark scabs covered a good portion of the areas involved. A creamy, dirty pus of sickening odor discharged from between the papillomatous growths. The pus could be squeezed from between the

growths at nearly every point. Below the right ear was a small growth, probably a lymphatic gland. Inside the mouth near the left angle were two small ulcers with warty bases. Along the inner surface of the cheek, left side and opposite the junction of the upper and lower teeth, were several tubercles about the size of a pea. On left forearm, flexor surface, was an irregular warty area, the size of a silver dollar. It had all the characteristics of the lesions on the face. There was no scar tissue in, or around this part. The scar tissue on the face was similar to that in cases of lupus vulgaris. There were no characteristic lupus tubercles or nodules, either in the scar tissue or beyond the border of the active areas. The disease spread almost altogether by continuity. The few isolated primary lesions seen during the treatment were pustules and papules, the latter soon pustulating and both quickly assuming a warty appearance.

Some dermatologists may consider the case one of lupus vulgaris, but it cannot be disputed that the verrucous element largely predominated. From the photographs it will be seen that on the left side of the neck there was a decided tendency to keloidal formation.

The girl had good height for one of her age, but was under weight.

The history and appearance of the lesions suggested three diseases, viz.: syphilis, blastomycetic dermatitis and tuberculosis. At first I felt that the case was one of blastomycosis, and worked faithfully with the microscope to prove it so. Reports from two pathologists on tissues examined, caused me to abandon the idea of blastomycosis, and search more carefully for the tubercle bacilli. Typical tubercle bacilli were found at different times in the pus squeezed from between the papillomatous growths. Dr. H. T. Brooks, of the Post Graduate Hospital of New York, made the following report on sections taken from upper part of the face:

"Microscopic examination of sections made from the tissue removed from growth upon cheek of negress, showed numerous small, rounded nonvascular connective tissue nodules presenting changes corresponding in every way to the typical histologic features of tuberculosis.

"The nodules are composed of a finely fibrillated reticulum supporting small round cells, large epithelioid cells and very numerous giant cells. The latter are arranged chiefly at the periphery of the nodules and send off delicate prolongations, which unite directly with the fibrillated basement reticulum. The centers of many of the

nodules have undergone more or less extensive coagulation necrosis (caseation). I was unable to find any tubercle bacilli or any form of blastomycetes in the small number of sections at my disposal."

(Signed) H. T. BROOKS.

TREATMENT.

The patient lived twelve miles from town, and was very irregular in her visits. From April to December, sixty X-ray treatments were given the face. Improvement was quite marked during the first four months, when she came with some regularity two and three times a week. She improved rapidly in weight, gaining fifteen pounds. Menstrual flow appeared the latter part of July. From August to December, her visits averaged not more than one a week. The face continued to improve under this irregular treatment, as also did her general condition. The lesion on the arm which had not been given X-ray treatment, was about one-third larger than when coming under observation, while nearly all lesions had disappeared from the face. There was, seemingly, no change in the condition of lesions in the mouth, except that they seemed larger. During December and January, patient did not come to the office. Returned in February, when I found that several of the old lesions had spread and a few new foci had developed. Ulcers in the mouth had extended considerably. Angle of mouth on left side was filled with a warty mass. Patient was given chloroform and all lesions except the tubercles on the inside of the cheek were thoroughly curetted, and afterward cauterized, the face and mucous surfaces of mouth with pure carbolic acid and the arm with nitric acid. During the latter part of February, also during the months of March and April, she was treated about twice a week with the X-ray. On May 1, when last seen, there were no active lesions on the face. Scar tissue marked the site of the entire area involved. Ulcers in the mouth had all healed and there was some diminution in the size of the tubercles. The lesion on the arm had entirely healed. Patient was not discharged as cured, nor do I claim now a cure. I regret she has not come for further observation and treatment. On her last visit she brought some friends, and as usual, under the circumstances, she tried a little acting for the benefit of her company. In the midst of her treatment, when some sudden noise was made by the machine, she threw out her arms, bringing one in contact with the cords. She gave a scream that could be heard all through the building, and rolled from the high table to the floor, striking on her face and abdomen. I have not seen or heard of my patient from that day to this.

PLATE IX—To Illustrate Dr. J. B. Shelmire's Article.



SOCIETY TRANSACTIONS.

BOSTON DERMATOLOGICAL SOCIETY.

Regular October Meeting.

Dr. JOHN T. BOWEN in the Chair.

A Case for Diagnosis. Presented by Dr. C. J. WHITE.

The patient was a woman, aged thirty-three, who presented herself at the Massachusetts General Hospital on October 12, 1905. She said that the first appearances of her disease presented themselves four months previously. On inspection there were seen on the bridge of the nose and over the upper part of the cheeks scaling, erythematous, discrete lesions about the size of a large pea. The condition on presentation to the Society had not much changed, although the lesions had somewhat decreased in size with here and there a minute cicatrix between the lesions and a suggestion of enlarged sebaceous follicles.

Dr. G. F. HARDING said that the disease suggested some seborrheic process, although there was a faint possibility of syphilis as the underlying cause.

Dr. JAMES C. WHITE had no definite diagnosis to offer. The appearances suggested a syphiloderm, lupus vulgaris and lupus erythematosus. The duration was too brief for the latter two and the large size of the papules, the breaking down of one of the lesions and the absence of generalized erythema and scaliness from the affected area were unusual in lupus erythematosus. The glands behind the ear were pronounced.

Dr. J. M. SMITH would think first of syphilis if other symptoms of the disease were to be found.

Dr. J. H. MCCOLLOM and Dr. ABNER POST agreed with the last speaker.

Dr. H. P. TOWLE believed that the disease was lupus erythematosus.

Dr. J. T. BOWEN would not entertain the idea of syphilis, but considered the case to be an anomalous lupus erythematosus, anomalous because of the small papular, acne-like lesions.

Dr. C. J. WHITE noted the site of the lesions and thought that the statement of the woman at the meeting, that the original outbreak looked like a butterfly, plus the present appearances indicated strongly the probability of lupus erythematosus.

A Case of Scleroderma. Presented by Dr. C. J. WHITE.

Mrs. B., aet. 66., consulted the exhibitor on the previous day on account of a skin affection which began "sometime during the last summer." No subjective symptoms, save localized stiffness, had been observed by the patient.

On examination the following conditions were found: Over the inner right malleolus there was a round area more than an inch in

diameter, the surface of which was red and somewhat moist. To the feel there was a distinct firmness and infiltration. An inch above this lesion there appeared a band three-quarters of an inch in breadth, hard, firm and elastic, ivory white in color with constant and numerous, transverse, brown fissures. This band extended upwards over the calf of the leg to the bend of the knee, where it seemed covered by eczematous skin and then continued as a firm, white band up to the middle of the back of the thigh. Above the pubes there was a round area, two inches in diameter, firm to the touch and covered with a superficial, oozing ulceration. Perception of touch was preserved over all these various lesions.

Dr. TOWLE felt from the distribution of the band-like lesion, that some disturbance of the vein was the cause of the cutaneous changes.

Dr. POST had never seen any such sequela of venous disturbances.

Dr. JAMES C. WHITE said that the case was one of ribbon-like scleroderma, but very superficial. The transverse fissures and pubic ulceration were, however, very unusual.

Dr. BOWEN agreed with Dr. White and remarked upon the unusual length of the band. He had read of such ulcerations in connection with sclerodermic areas.

A Case for Diagnosis. Presented by Dr. H. P. TOWLE.

A. N., aet. 18. Born in Sweden. When four years old the patient fell against a door knob and broke his nose. Soon afterwards the face became sore and an eruption appeared and for eight years the oral region was ulcerated and covered with crusts. From 1899 to 1901 the man was treated by a physician with washes, ointments and internal medicine, the nature of which could not be determined. In November, 1901, the patient came to the Massachusetts General Hospital, when the following note was made:

With the mouth for a centre there is a circular area five inches in diameter covering the chin and adjacent cheeks and extending up to the nasal bones. This area consists of smooth, cicatricial tissue, soft and thin. The lips have grown together with the exception of an opening, slightly to the right of the centre, large enough to admit the index finger. This contracted mouth cannot be opened or closed. The entire cartilaginous part of the nose has been destroyed, leaving two small openings for the nostrils surrounded by crusts. No enlarged glands present.

Operation was advised and performed by Dr. H. H. A. Beach. The mouth was enlarged with scissors and the mucous membrane was sutured to the skin with silk. The front teeth were found projecting forward and were pushed backward behind the lower teeth. Microscopical examination of an excised portion of the tissue by Dr. W. F. Whitney showed simply a little rather dense connective tissue on which there was a layer of skin with apparently normal papillæ and some hypertrophy of the epidermis. The connective tissue showed a slight cellular infiltration

along the line of the blood vessels, but there was no evidence in them or elsewhere in the sections of any specific form of inflammation.

On December 3, 1901, the mouth was healthy looking and the lips could be moved freely and the patient was referred to the Harvard Dental School for treatment of the oral cavity.

In May, 1905, an ulcer developed near the mouth and grew gradually larger until October 6, when the man reappeared and was admitted to the Skin Ward of the Massachusetts General Hospital.

Examination at entrance showed that the heart, lungs and abdomen were negative. The urine was acid; sp. gr. 1026; albumen and sugar absent. The whole of the nasal septum, part of the vomer and nasal bones are gone, leaving a granulating surface covered with dry crusts. From the end of the remnant of the nose to the border of the upper lip is a round ulcer ($2\frac{1}{2} \times 2\frac{1}{2}$ inches) with edges sloping gradually, except at the upper right portion where there is a punched-out appearance. The floor shows a rough, granulating, grayish-red surface bathed with a slimy, greyish discharge from the nose. Leading down from each nostril is a deep furrow, the one on the right continuing down to the cavity of the mouth. Scattered over the floor of the ulcer and surrounding it are brownish-black crusts. Outside the crusts the border of the ulcer is indurated and the skin of the nose, cheeks and lower lip is dull red, indurated and cicatrized.

Examination of the tissue by Dr. J. H. Wright showed granulation tissue undergoing necrosis and a tissue suggestive of epithelioma, but careful study of the specimen, however, revealed the fact that this epitheliomatous tissue was nothing but what might be observed in connection with a chronic ulcerative process and that the granulation tissue was the essential feature of the section.

Since entrance the man has received iodide of potash in increasing doses and lately pills of mercury, while boracic acid ointment has been applied locally. For the last week X-rays have been used, but thus far treatment has shown no beneficial effects and the condition of the face remains the same as at entrance.

Dr. SMITH would consider this case to be epithelioma, but would make a mental reservation in regard to syphilis.

Dr. McCOLLUM could not regard either of these diseases as the one present.

Dr. POST said that the disease was certainly not syphilis, but might be epithelioma.

Dr. HARDING wished to consider epithelioma, lupus vulgaris and on account of the man's birthplace (Norway), leprosy.

Dr. JAMES C. WHITE felt that the condition might be epithelioma at present, but that it undoubtedly must have been primarily a tuberculosis (lupus.)

Dr. BOWEN and Dr. C. J. WHITE thought that such an explanation was the most plausible one.

Dr. TOWLE said that the ulcerated surface had gradually filled in from the bottom, but had spread laterally under increasing doses of iodide of potash. Nevertheless, he felt convinced that the process was fundamentally a tuberculosis.

A Case of Bromide Eruption? Presented by Dr. J. T. BOWEN.

Mary S., aet. 25, entered the Massachusetts General Hospital with the following history: For the last five years she has been in the habit of prolonged drinking spells lasting four weeks at a time and ending with delirium tremens. She has been accustomed to smoke four to five boxes of cigarettes a day. The present eruption dates back seven weeks and appeared while in prison, as a small vesicle (?) on the right cheek and increased up to the size of a silver quarter of a dollar when the prison doctor opened it. Soon afterwards similar lesions appeared on the nose, forehead, temple and back of the neck. These were followed by other lesions of a like character on the left cheek and in front of the chin. All were lanced and subsequently increased in size and continued to develop until her entrance to the ward. The areas were all pruritic and painful and emitted a strong, sickening odor. She said that while in jail she had taken large doses of bromides.

Sleep disturbed; appetite good; urine pale, acid, sp. gr. 1017, no albumen, no sugar; heart and lungs negative.

At the time of entrance there were large irregularly circinate lesions symmetrically distributed over the face, cheeks, nose, chin and back and sides of neck. In addition there were also pea-sized, oval, vesico-pustules, tense, and surrounded by an inflammatory halo. The circinate patches varied in extent, the largest six inches by four. The borders were marked by brownish, soft crusts which sprang as if pus were beneath, while in other parts were elevated by purulent fluid. The centres were clearer than the edges and in the older areas were almost normal, suggesting the peripheral growth of the lesions. There were a few vesicles and crusted patches in the scalp. Below the right eye the whole surface was covered with smooth, dry, cracked crusts.

The patient has received frequent soap and water baths and ointments of boracic acid and of salicylic acid and sulphur and at the time of presentation showed only a faint, suggestive crusting or scaling periphery enclosing spaces of pink skin with evidences of follicular scarring.

Dr. C. J. WHITE said that the present conditions were more suggestive of lupus erythematosus than of a bromide eruption, and if he had not seen the photographs of the disease at its climax, or heard the history, he would certainly regard the disease as lupus erythematosus. He felt that the seat of the lesions, their symmetry, the scaling (?) periphery and the central follicular atrophy all were consistent with such a diagnosis. The duration of the process (if the patient's story was true), and its amenability to treatment, were of course much against such a conception.

Dr. HARDING agreed with the last speaker, but said also that he had seen cases of bromide eruption limited entirely to the face.

Dr. JAMES C. WHITE thought the present condition of the disease had very little resemblance to bromide dermatitis. The sharp outlines, acute angles, and symmetrical arrangement of the affected areas on the back of the neck signified some other process of older date.



Dr. Towle's Case for Diagnosis



Dr. Bowen's Case of Bromide (?) Eruption.

A Case for Diagnosis. Presented by Dr. J. T. BOWEN.

Mary S., born in Ireland, single, aet. 40, housework. Patient was first seen May 18, 1905. The woman asserted that for fifteen years she had not been free from eruptions of apparently similar character to those then present. When first seen there were eczematous patches of large area on the arms, scaling, erythematous, and, in places, slightly crusted with signs of vesiculation. On the legs appeared similar lesions, very sharply bounded, circinate, serpiginous and some crusting. On the right lower maxillary region there was a raised, moderately firm, large, rounded tubercle with a number of small foci of suppuration scattered over it. There had been a somewhat similar lesion of the thigh near the groin, but this had partially disappeared.

It was noted at the time that there was some resemblance to mycosis fungoides both in the face tumors and in the plaques on the thigh. On the cheek, near the tubercle that has been described, there was a small, sharply outlined, scaling patch.

On June first the eczematous conditions were somewhat better but there was no change in the raised nodular masses. On October twelfth the infiltrations of the face and thigh had become flatter and looked like a sharply bounded eczema.

On presentation to the Society there were no nodular lesions of the left side of the face but new circinate and annular areas had appeared over the maxillary region.

Dr. JAMES C. WHITE said that the history of the case and the present lesions were consistent with Dr. Bowen's suggestion of mycosis fungoides, but the absence of pronounced itching and of any diffused erythema were rather against such an idea.

DRS. HARDING and C. J. WHITE agreed with the statement, Dr. C. J. White adding that he thought fifteen years was a rather long period for the premycotic stage, especially as the last few months had shown regressive rather than progressive changes.

Paget's Disease of the Nipple. Presented by Dr. H. P. TOWLE.

Martha F., aet. 65, married. This woman entered the Skin Ward of the Massachusetts General Hospital in October and stated that six years ago a "moist pimple" developed upon an invaginated right nipple. This lesion gradually increased to the size of a one-cent piece and then remained stationary for about a year. At that time the skin was treated with Castile soap and an ointment. Since that time the affected area has slowly increased in extent, at times drying, but usually presenting a moist, oozing surface.

On admission the left breast appeared small with an ingrowing mamma.

Both the right nipple and breast are entirely gone. Over this

pectoral region there is an area eight inches transversely by five inches longitudinally, irregular in shape, sharply defined and consisting of somewhat crusting tissue, here and there covered by a hard, pearly quasi-epithelium suggestive of parchment. In the upper part of the ulcerated area the consistency is soft and the process superficial; below, the tissue is resistant and slightly œdematous; the lower portion, again, resembles the more normal superior part.

From the lower border of the lesion a piece was excised which included both the sound skin and the diseased area. This was hardened in Zenker's fluid and the sections stained with methylene blue. Under the low power of the microscope it was seen that the chief changes were in the rete. This layer rapidly increased in width until it attained a size nearly double that of the healthy skin. The interpapillary prolongations were correspondingly enlarged both in width and length. The rete cells, which were at first arranged in orderly fashion and stained well became more and more disorderly in their arrangement, paler staining and larger as the diseased portion was approached, until finally an area was reached in which all order was lost and the prolongations and the portions just above showed a confused mass of large, pale cells widely separated from one another. Except for a slight infiltration of the upper portion of the papillary layer adjoining, the corium showed no especial change.

Under a higher power it was seen that these large cells just mentioned had a protoplasm which appeared granular, was retracted into irregularly angular shape, leaving a clear space about it, and enclosed a nucleus which was sometimes of abnormal shape and size, sometimes smaller and irregular, sometimes double its usual size, olive shaped and deeply stained. Scattered among these cells were others with a small amount of protoplasm and a shrunken nucleus. In the uppermost parts of this area were masses of enormous size, stained faintly, lying in cavities of still larger size, so that there was a clear, unstained zone about them. These masses were granular, with ill-defined borders and contained one or more distorted nuclei. Some were homogeneous, some more or less segmented with thin, long drawn out, nuclear-staining mass in each segment. In one instance such a mass contained a small, distorted nucleus tightly clasped about one end of a perfectly round body which, while sharply defined, had no well marked membrane, in whose interior could be made out, with still higher powers, small, round, indistinct masses arranged around the periphery. The inter-epithelial spaces were everywhere throughout this region dilated. There were occasional evidences of beginning vesicle formation. The inter-epithelial bridges were, as a rule, preserved, except where the cells were very large and granular, when they were missing.

Under black wash and zinc oxide paste the upper and lower

areas have developed a normal (?) epidermis and the middle resistant area has disappeared, leaving the skin soft and pliable.

The members of the Society agreed that the disease present was undoubtedly a malignant dermatitis.

Dr. TOWLE said that insufficient time had elapsed for a careful microscopical study of the case, but a rapid examination had revealed a condition consistent with the above diagnosis, and, in addition, he had noted the epithelial bodies of Darier and Wickham.

A Case of Tonsillar Chancre. Presented by Dr. C. M. SMITH.

Frank M., aet. 26, a bartender. The man says that he has had a sore throat for a month. On inspection there is a marked roseola generally distributed over the trunk, which appeared the day before. There is no evidence of any sore about the genitals and no prominent enlargement of the inguinal glands. On the right tonsil there is quite a deep ulceration surrounded by a zone of redness and infiltration. The glands under the angle of the jaw on the right side are distinctly enlarged. No history of the infection could be obtained.

Dr. Post agreed that all evidences pointed towards an initial lesion of syphilis upon the tonsil, although such a diagnosis was always a difficult one to make in this part of the body.

The members of the Society were all in accord with Dr. Post's statement.

A Case of Seborrheic Eczema plus Eczema. Presented by Dr. H. P. TOWLE.

Leo R., aet. 25, clerk. The patient stated that one year ago an eruption appeared on the right shoulder and gradually spread across the back of the neck to the opposite shoulder. At the end of four months Heiskell's ointment (subacetate of lead) was rubbed into the affected area and the disease disappeared.

Two weeks before presentation to the Society scaling plaques developed over the sternum and between the shoulders, to which the patient again applied Heiskell's ointment and Johnson's antiseptic soap.

A few days afterwards the man came to the hospital and the typical lesions of seborrheic eczema above described were noted. In addition there appeared on the upper trunk and arms and particularly on the neck and face numerous small, single and coalescent, acuminate, infiltrated scarlet papules, some of which were vesicular and oozing.

On October 23, the man was admitted to the Skin Ward and on entrance it was found that the eruption had become generalized, except on the hands and feet. The original sternal and dorsal plaques were still visible, covered with a mortar-like scale or crust. The rest of the body presented all the evidences of an acute vesicular eczema. The organs and functions of the body were apparently normal.

The members present all agreed with Dr. Towle's diagnosis.

A Case of Blastomycosis. Presented by Dr. J. T. BOWEN.

Frank T., aet. 32, Italian, was admitted to the Skin Ward of the Massachusetts General Hospital on October 4, 1905.

The man speaks but little English. He was a farmer in Italy and came to America two years ago, since when he has been a laborer with pick and shovel. Nine months ago he noticed a "boil" on the back of the left wrist, which has gradually increased in size up to the present time. Pain and itching have never been noticed in the lesion.

General physical examination reveals nothing abnormal apart from the cutaneous eruption.

Over the inner half of the posterior surface of the left forearm, just above the internal condyle, is an oval patch, $2\frac{1}{2} \times 2\frac{1}{2}$ inches, surrounded by a dark red, smooth, slightly elevated zone about one-quarter inch wide. Inside this zone the lesion presents a warty appearance, the papillæ being closely set and irregular in shape with rounded tops and separated in places by deep fissures and abrasions. Some of the papillæ are covered with brownish-black crusts. On pressure, drops of pus well up from below between the papillæ. The whole centre of the plaque inside the papillomatous area presents a flattened, smooth, shining cicatricial area, livid red in color, mottled by remnants of brownish-black crusts.

Just below and external to this oval area is a nearly circular patch resembling the first one, except that the entire central portion is composed of brownish-red, warty excrescences, some of which are covered with dark brown crusts. Where abrasions exist the excoriated papillæ present a rather angry, moist appearance.

Both patches are movable upon the underlying parts.

Histologically there is deep penetration of the rete into the corium and papillary hypertrophy with abscesses in the epidermis in which bodies with a double membrane and resembling closely the blastomyces are found. The upper layers of the corium present a granulation tissue, containing many plasma, epithelioid and giant cells. Here also blastomycetes are found in several instances. A further study of this case is now under way.

Dr. JAMES C. WHITE congratulated Dr. Bowen on the presentation of the first example of blastomycosis observed in Boston.

A Case of Lichen Planus. Presented by Dr. J. T. BOWEN.

Daniel G., aet. 33, printer, born in Nova Scotia. The present eruption appeared three weeks ago on left forearm and shoulder and gradually developed on the body. Examination revealed a profuse distribution of flat-topped papules over the arms, trunk and legs. On the upper extremities the lesions were in groups, dull red, some elongated with flat tops, shining surface and very slightly scaling. On the calf

of the legs the papules varied in size from that of a large pea to a silver ten-cent piece, round, dull red, discreet or coalescent. On the back of the hand there was a suggestion of vesiculation among the lesions, while umbilication was more marked than elsewhere.

On the tongue were several plaques, whitish in color and irregular in shape, varying in size from one-half to one inch in length. On the inside of left cheek were similar patches, while across the vermilion border of each lip was a band of dry, scaling epithelium.

CHARLES J. WHITE, *Secretary*.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held in the Polyclinic Hospital, Tuesday evening, November 21, 1905, at 8:30 P. M.

Dr. M. B. HARTZELL, in the chair.

A case for diagnosis was presented by Dr. Stelwagon. The patient was a man 26 years of age. The duration of the affection was four weeks. The eruption involved the face and body and consisted of small acuminate lesions. There also seemed to be an element of urticaria present. The patient also showed an erythema of the pharynx. The possibility of the condition being a vesicular urticaria was suggested. Leucocytosis and an evening rise of temperature were present.

Photographs of a case of factitious dermatitis were shown by Dr. Stelwagon. The patient was a woman and the artificially produced lesions were at first confined to the anterior surface of the chest. By suggestion, the patient was led to produce similar lesions elsewhere.

A case of lupus erythematosus treated by the Finsen method was brought to the attention of the society by Dr. J. T. Schamberg. The patient was a young woman. The disease had affected the left cheek only and the area involved was about the size of a quarter dollar. The first sitting, which lasted thirty minutes, was followed by marked improvement. A lotion composed of resorcin, ten grains to an ounce of water, was then prescribed. After a certain interval another exposure was made. At this time the exposed area was considerably reddened, but the effect on the disease was marked. The prominent follicles were entirely obliterated. The London lamp was employed in this case.

An unusual case of syphilis was presented by Dr. Stelwagon, the history of which was especially instructive. The patient was a woman and one year previously had come under Dr. Stelwagon's notice by reason of a localized papular syphilide, which, however, did not respond quickly to antisyphilitic treatment. The patient after a time ceased her visits. One week ago a generalized eruption made its appearance, resembling in many of its features, erythema multiforme. There was a slight itching of the forearms, but this was attributed to the woman's work, which required the almost constant use of soap and water. The possibility of a true erythema multiforme occurring in the course of syphilis was freely discussed.

A case of naevus of the back of the neck was shown by Dr. C. N. Davis. The patient was a girl, twelve years of age. The condition had existed from infancy and according to the mother's statement had been increasing in size from year to year. When first seen by Dr. Davis the growth was covered by crusts which were secondary to pediculosis capitis. On removal of the crusts a mulberry shaped mass about four inches long, one inch wide, and three-quarters inch high was exposed.

A case of pemphigus was exhibited by Dr. Stelwagon. The patient was an inmate of the Philadelphia Hospital and had been suffering from this condition of the skin, with remissions and exacerbations, over a period of eighteen months. The patient was a Russian woman and was more or less generally covered with blebs of varying size. At one time the mucous membrane of the mouth was affected. The general health did not seem to be particularly affected.

A case of more or less generalized impetiginous eruption was also shown by Dr. Stelwagon. The condition had existed one month and was said to have first made its appearance on the face, forty-eight hours after having taken a Russian bath. The face only was involved upon admission to the Philadelphia Hospital, but shortly afterwards the eruption spread over the entire body and arms and legs. The eruption consisted of annularly arranged pustules and crusts. The temperature was normal but the heart's action was irregular. The itching was intense. The possibility of sycosiform eczema was entertained.

Ulceration of the left cheek, shown by Dr. E. J. Stout. A man forty-eight years of age. The lesion was about the size of a silver dollar and roughly excavated, the surface being villous in character. The duration was seven months. For three months the patient had taken mercury and potassium iodid at the advice of another physician, but without effect. There were no miliary abscesses or sinuses, but the society seemed to be of the opinion that in all probability the case was one of blastomycosis.

Psoriasis benefited by the internal administration of carbolic acid was well exemplified by a case shown by Dr. Stelwagon. The disease in this case was very extensive. The external treatment consisted of alkaline baths and petrolatum. Internally, the patient had been taking carbolic acid, in glycerine and water, in increasing doses. At the present time he was taking twenty grains daily and no untoward effects had been observed. The psoriasis had been entirely effaced. He is now using the same treatment on other cases of this disease with encouraging results. Discussion as to the best vehicle for administering the carbolic acid brought out the facts that cherry wine and also peppermint water and glycerine were of great value in disguising the drug.

A case of Darier's disease affecting one side of the trunk was shown by Dr. M. B. Hartzell. The patient was a middle-aged man and had been the subject of this disease for a period of six years. He was at present under treatment at the University for asthma. The cutaneous condition was confined entirely to the right side of the lower part of the chest and upper part of the abdomen, stopping abruptly at the median line. The lesions were pin-head to pea-sized and in some instances the follicular plugs were to be seen. A biopsy had been made, the results of which confirmed the clinical diagnosis. A slide was shown containing a series of fifteen sections, which served to illustrate the histopathology of this disease very well.

Generalized lichen planus occurring in a male patient was brought to the notice of the society by Dr. Stelwagon. The condition had existed for a period of five months and while for the most part was made up of flat papules, it was possible in certain areas of the trunk to detect rounded or hemispheric papules. In the popliteal spaces the lesions had become aggregated into patches, some of which seemed somewhat hypertrophic.

Dr. Stelwagon also exhibited the case of epithelioma of the hand and face, shown at a previous meeting, in order that the society might have the opportunity of noting the marked improvement produced by the X-ray, under which treatment this case had been placed. A slough had formed on the hand previous to the first exposure and had pursued its own course unaffected by the ray.

Dr. Shamberg presented for diagnosis slides of an unusual ulcerative condition; Dr. C. N. Davis showed a slide of a specimen taken from a case of suspected blastomycosis. Neither was especially distinctive.

SAMUEL HORTON BROWN, M.D., Reporter.

MANHATTAN DERMATOLOGICAL SOCIETY.

45th Meeting, November 3, 1905.

Dr. E. L. Cocks, Chairman.

Lepra Tuberosa. Presented by Dr. W. S. GOTTHEIL.

H. S., aged twenty-nine, born in California of white American parents; has lived in the West Indies from his second to his sixteenth year; no similar case in his family; has seen lepers, but never associated with them. Ten years ago first noticed discoloration of the legs, which has gradually extended all over the body. At the same time a perforating ulcer under the ball of the right great toe began and is still present. Six years ago tubercles appeared on the face, ears, arms, legs, trunk, and in the mouth. Recently ulceration of some tubercles and of finger and toe tips have developed with joint pains, and anæsthetic areas; also a chronic low-grade iritis, which was recognized as lepromatous by the ophthalmologist, Dr. R. Kalish. Serum smears show swarms of lepra bacilli.

Treatment. Chaulmoogra oil has been given internally up to tolerance (ninety drops daily), and externally; this has given the best results in the City Hospital. Ulcerations are all healed; perforating ulcer unchanged.

Dr. Pisko said that he had seen little or no improvement under the oil in two cases; a third had been benefited by the high frequency current and large doses of arsenic.

Erythema Multiforme. Presented by Dr. Pisko.

Girl of twelve, with well-marked lesions on arms, legs, trunks, and face. Shown because of typical character.

Lupus Vulgaris in Grafted Skin. Presented by Dr. A. C. GEYSER.

Female, single, lupus on left side of face since childhood, variously treated with applications, caustics, curettage, and finally skin-grafting eleven years ago. Graft taken from patient's thigh. Lupoid nodules reappeared in the graft margins, and then in the more or less cicatricial tissue itself. Under the X-ray, itching and burning has been relieved, and the nodules seem to be retrogressing.

Dr. Pisko thinks it quite possible that a new lupus may have been grafted on the old lesion, and disapproves of taking skin from the patient on that account. It was the general opinion, however, that some lupoid lesions had probably been left behind in the excision, and extension taken place by continuity.

Prurigo (Hebra). Presented by Dr. E. Pisko.

Jennie G., aged eleven years, born here, of Russian parentage. Eruptions began when two months old, present ever since. There are dry

and excoriated papules, vesicles, abrasions, and crusts on forehead, face, trunk, and extensor surfaces of limbs; typical lesions on both palms. Glands enlarged, especially in groin; joint flexures always free. Urine normal; blood normal (eosinophiles 18.6%). Has markedly improved under prolonged green soap baths followed by 2% menthol-lanolin ointment, carbolic acid one drop t.i.d. internally, and regulation of diet.

Herpes Gestationis. Presented by Dr. W. S. GOTTHEIL.

Mrs. M. P., Russian, aged thirty-two years. In the third month of her first pregnancy (1901) there appeared an intensely pruriginous general eruption. When first seen by the reporter at the eighth month, her body was covered with various sized papules, vesicles, and erythematous patches with distinct iris rings; photograph taken at the time shows the lesions plainly, and justifies the diagnosis of erythema multiforme then made. The child, born at term, died at seven weeks, with some undetermined general eruption (no blebs). A second similar but worse attack with large bullæ in her second pregnancy (1902) disappeared spontaneously in six weeks; child normal and living. In third pregnancy (1905) another attack in third month of gestation; this is still present—one month after delivery of healthy child at term. Almost all the body is covered with papules, vesicles and bullæ, dried crust and excoriated areas, and the deep stains of past lesions. Lower legs and upper surfaces of feet are covered with bullæ, some as large as small eggs. Great itching and burning, but general health almost unaffected. The latest developments in the case, and especially the multiformity, pruritus, and general good health, lead the reporter to the supposition that the case should be classed as an unusual variety of dermatitis herpetiformis occurring in association with gestation.

Dr. GEYSER inclined to the diagnosis of pemphigus in spite of the association with pregnancy. Dr. WEISS agrees with the reporter, the bullæ being entirely unlike those of true pemphigus. Dr. OBERNDORFER lays stress on the facts that the description and photograph of the first attack correspond entirely with erythema multiforme, and believes that the two later ones were of the same nature. The upper part of the body shows papules and vesicles, the lower bullæ almost exclusively; this is probably due to mechanical conditions, together with the hydremia commonly associated with pregnancy. Dr. COCKS holds the case to be Duhring's disease of an unusual type.

Sarcomatosis Cutis Multiplex. Presented by Dr. LUDWIG WEISS.

Female, aged twenty-four years, married. Patient states that these tumors first appeared seven years ago; then disappeared, to reappear two months ago. Is healthy, save for a mitral regurgitant lesion. New tumors first appeared seven years ago; then disappeared, to reappear two months ago. There are numerous subcutaneous split-pea to marble sized nodules, the smaller movable and white, the larger vivid, bluish-red, softer, and becoming adherent to the skin; they are exceedingly painful. The arms,

legs, and buttocks are the sites affected. In addition to the most probable diagnosis, fibroma, myoma, and neuroma are to be considered. Tumors to be examined microscopically and reported on later.

Pigmentation of the Face of Unknown Nature. Presented by Dr. E. L. COCKS.

Young female, single, in good health, showing a marked dark brown discoloration of almost the entire face. Has been present several months; no cause apparent. Skin slightly greasy and scaly, otherwise normal.

Dr. GOTTHEIL thought the condition looked like an arsenical pigmentation; no stress was to be laid on the absence of history, in view of the frequency with which the drug is taken for cosmetic purposes.

Syphilitic or Tubercular Adenitis? Presented by Dr. A. BLEIMAN.

Young man, thirty, had incipient pulmonary tuberculosis three years ago; went West, returned after a year, cured; excellent health, no bacilli in sputum. Syphilis one year ago; under constant observation and treatment. No tertiary lesions. Six months ago noticed gland under left jaw; neighboring glands became involved, until a soft, doughy, egg-sized mass was formed. The question is as to the nature of the glandular tumor. The tuberculosis is apparently cured; and the tumor developed whilst patient was undergoing antiluetic treatment (injections).

Drs. PISKO and GOTTHEIL said that they had seen similar cases. The diagnosis was difficult when there was history of both diseases. Dr. GOTTHEIL had seen more than one such supposedly tubercular gland, but really gummatous infiltration, operated on.

Dermatitis Exfoliativa. Presented by Dr. E. L. COCKS.

A. M., aged fifty-three years, tailor, well until last August, when itching and redness began on face and spread all over body. In October his whole skin was covered with a diffuse rash; subsequently there was a fine desquamation; palms and soles were involved.

Most of the members present considered the case to be a general psoriasis; Dr. OBERNDORFER called attention to the seborrhœal element in the eruption, and would call it eczema seborrhoicum psoriasiforme; Dr. WEISS favored the reporter's diagnosis. Dr. BLEIMAN believed the case to be one of chronic general eczema.

Idiopathic Keloid, recurrent after Operation. Presented by Dr. L. WEISS.

Patient appeared one year ago with a small keloid in the skin of the right breast, which was excised because of a beginning and possibly malignant infiltration of one border. There has since been a regrowth of keloidal tissue, so that the Y-shaped tumor is now three inches long and one inch broad. Another keloid is developing in the left breast.

Dr. GEYSER advocated the use of the high-frequency current in this case, as it favors absorption. The X-ray is useless, and may even be harmful, since it causes inflammation, followed by fibroid degeneration, and increase of scar tissue.

Xanthoma Tuberosum Multiplex. Presented by Dr. W. S. GOTTHEIL.

Jacob S., aged twelve years. Tumors first noticed at six years of age and gradually increased in size and number. Twelve tumors are now present, located on the elbows, knees, buttocks, legs, and back of hand. The largest mass ($1\frac{1}{2} \times 1$ inch) is on the back of right elbow; all lesions are of typical shape, color, etc. Six of the smaller lesions have been excised under local anæsthesia in the last month. Left elbow lesion, a little smaller than right, has had thorough X-ray treatment; thirty sessions, ten to fifteen minutes, low tube, finally placed as close as possible to skin; no reaction save slight tanning, and no effect on tumors. Urine normal, general health good. To be sent to Lebanon Hospital for excision.

Epithelioma of Lip; Clinical Cure by Radiotherapy. Presented by Dr. A. C. GEYSER.

Male, aged seventy years, shown at a meeting last year with a typical filbert-sized epithelioma of lower lip. After three months X-ray-ing tumor has practically disappeared; surface smooth, no deformity.

Rhinoscleroma. Presented by Dr. W. S. GOTTHEIL.

Female, Russian, æt. 29. States that the infiltration began in the columella nasi four years ago, and has gradually extended into nose, palate, throat, and lip. The hard tumor now projects as a large double mass from the anterior nares, elevating the nose and pushing the lip forwards; nasal passages almost occluded, admitting only the finest probe. Entire superior maxilla infiltrated, as is the soft palate; uvula gone, and posterior pharynx so deformed and infiltrated that laryngorhinoscopy is almost impossible. General health fair; has recently had a child. Attempts at instrumental dilatation of the nasal passages causes violent and uncontrollable hæmorrhage. Operative interference is out of the question; the X-ray is now being used, but without much hope of results.

Case for Diagnosis. Presented by Dr. W. S. GOTTHEIL.

Mrs. D. B., æt 25; for two years past has had a black spot on the middle of outer border of right foot, slowly growing in size. It is now three-quarters inch in size, sharply defined, slightly elevated, deep blue-black in color, and with absolutely no inflammation round it. No subjective symptoms; but last summer it discharged a little blood and sero-pus from time to time; in the center are now three minute crateriform openings from which a little fluid exudes; no sinuses can be detected with finest probes. Smears show only ordinary pus organisms. No fungi or fish-roë masses. Sarcoma or melanoma seems to be most likely diagnosis; there is no resemblance to guinea-worm disease, and mycetoma seems out of the question in a patient who was born and has always lived here. To be excised, examined and reported on later.

A. BLEIMAN, Secretary.

REVIEW
of
DERMATOLOGY AND SYPHILIS

Under the Charge of A. D. MEWBORN, M. D.

INHERITED SYPHILIS.

By C. MORTON SMITH, M.D., Boston.

Nutrition of Inherited Syphilitics. BOISSARD and DIVI. (*La Syphilis*, Vol. II., p. 496.)

Attention is called to the advantages of the chart of daily weight. The authors feel that inherited syphilis is often a cause of failure to properly gain in weight in an infant without any apparent trouble with the digestive tract; simply a failure to properly assimilate food, although the child may be taking large quantities of milk.

They look upon this inability to gain in weight, without apparent cause, and in spite of changes in the quantity and quality of the milk, as sufficient ground on which not only to suspect but to affirm the presence of an *attenuated* inherited syphilis, even if the mother and child are free from all outward syphilitic manifestations. As proof of their statement they point to the success of mercurial treatment; increase in weight while mercury is given and loss in weight when it is withheld.

Their treatment consists of giving Van Swieten's Mixture and frictions of mercury. The authors suggest that a chart of daily weight may serve to point out an attenuated inherited syphilis, characterized only by an inaptitude to take on weight. This inaptitude has nothing to do either with the quantity or quality of the milk taken. Neither does it arise from an acute infection, nor from a gastro-enteritis—and furthermore it disappears under mercurial treatment, and permits one to make a diagnosis of *attenuated* inherited syphilis even in the absence of usual manifestations. Charts are shown and cases reported.

Umbilical Cord in Inherited Syphilis. FRANCESCHINI (*La Syphilis*, Vol. II., p. 481.)

On account of the frequent difficulties in diagnosing inherited syphilis in the new-born, the author is surprised that so little time has been devoted to studying the histo-pathological changes in the umbilical cord (which is the only tissue available for such examination, in the case of

living babies), and by which, in some cases, a latent syphilis might be revealed. It is only since 1895 that attention has been called to this subject. The scanty literature on the subject is reviewed and the conclusions of various authors given.

The changes due to syphilis, according to the literature reviewed, are found in the blood vessels, more in the vein than the artery, and consist of general atheroma of the vessel walls, infiltration and fatty degeneration, stenosis of the vein with thickening of the walls, and stenosis of the artery from fatty degeneration. He quotes Langier who had examined two cords, one from a child manifestly syphilitic, the other from a macerated foetus. These cords showed lesions which could well be attributed to syphilis.

The changes were confined chiefly to the veins, the arteries being almost normal. The changes in the veins were deep endophlebitis and peri-phlebitis.

Rosinski is also quoted. He states that syphilis produces an atheromatous process in the vessels of the umbilical cord, particularly with cellular infiltration of the intima.

The author reports the examination of two cords—one from a child born alive, the other dead. The mother of the child born dead, at seven months showed enlarged glands, papules of the vulva and condylomata. Examination of the cord showed both artery and veins to be sensibly altered, a thickening of the vessel walls, particularly the intima, which showed a greater thickening than the others, and an infiltration of polynuclear leucocytes.

The walls of the vein also showed a fatty change and infiltration of leucocytes.

The examination of the child born alive, whose mother was freshly syphilitic (showing roseola, glands and papules about vulva and anus), showed practically the same changes as described above, sometimes in the artery and sometimes in the vein, usually more marked in the vein.

The changes are, thickening of the vessel walls, stenosis of the vessels by proliferation and by cellular infiltration and several foci, which he calls miliary gummata.

He always examines the foetal end of the cord.

To sum up:

The histological changes in the cord show ordinarily as much in the artery as in the vein, as inflammatory processes of exudation and proliferation with œdematous infiltration of the vessel walls, with little nodular specific foci in their depth.

The lesions appear thicker in the intima, showing as an end-arteritis or an endo-phlebitis, and sometimes accompanied by stenosis and obliteration of the lumen.

Peri-arteritis and peri-phlebitis are less intense and relatively less frequent. When one vessel only is attacked it is the vein that is affected.

Treatment of the New-Born Issue of a Syphilitic Without Apparent Syphilis. KEIM. (*La Syphilis*, p. 505.)

It is well recognized that the new-born who show cutaneous or mucous lesions, should be treated with mercury. The new-born, of syphilitic parentage, in spite of the absence of signs and symptoms, may often, also, need treatment. Fournier says a preventive specific treatment is often useful. It is particularly indicated in the new-born of syphilitic parents, in case they show symptoms and signs which with a healthy parentage would be of small importance. He thinks that diarrhœa, vomiting, loss of weight, abnormal color of stool, etc., persisting, should arouse suspicion of a visceral infection of syphilis, often attenuated, but nevertheless requiring mercurial treatment. He cites the case of a woman who contracted syphilis in 1894. The attack was mild. She was treated with protoiodide pills and iodide of potassium for three years.

There were no manifestations except roseola and mucous patches. Her first pregnancy occurred in 1899. During three months she took Gibert's syrup and bore a healthy child at full term. The child is now five years old and has never shown a trace of syphilis. There was an abortion at one and one-half months in 1901. The third pregnancy occurred in 1902. Again treatment was given for three months; this time Van Swieten's mixture and iodide of potassium were used. The child was born fifteen days before term, and showed no outward signs of syphilis up to the six month. The baby nursed and gained weight regularly up to this time, when, without apparent cause, it began to loose, the stools which had been normal in color became white, vomiting began and the baby refused to nurse. Skin, conjunctivæ and urine remained normal in color, the liver and spleen were not enlarged. As the child was constantly growing weaker, mercurial frictions were given. After the third rubbing, the stools became colored, vomiting ceased and the child took its nourishment. Unfortunately death occurred from a broncho-pneumonia contracted about this time.

Fourth pregnancy was in 1903. Mother was again treated, though she had shown no symptoms of syphilis. She was delivered at term of an apparently normal baby. During the first few days it did not nurse well and did not gain in weight. On account of the progressive loss of weight, vomiting, green stools and general apathy, it was decided on the ninth day, to give a course of fifteen subcutaneous injections, each of a milligram of biniodide of mercury. Improvement began within a few days; the stools became yellow, vomiting ceased, the baby nursed well and regained its birthweight on the twelfth day.

During the second and third months, a series of ten injections each were given in spite of the fact that no syphilitic manifestations or symptoms had developed.

Neither of these babies showed at any time any manifestations of

syphilis upon the skin, mucous membranes, or internal viscera that could be detected by clinical examination. Both presented symptoms common to many babies, but which yielded promptly to mercurial treatment.

Late Inherited Syphilis and Syphilis of the Second Generation.

E. FOURNIER. (*La Syphilis*, Vol. II., p. 437.)

Edmond Fournier showed two photographs, at a meeting of the French Dermatological Society, representing lesions of exactly the same appearance; one occurred in a late inherited syphilitic, the other in a syphilitic of the second generation. The eruption in each case had existed for a long time, was serpiginous in character and involved large areas. They had been considered tuberculous and treated as such at various times without success.

The first patient was a man of forty-three. For nine years he had had the eruption covering the lower part of the abdomen and upper part of the thighs.

Specific treatment cured it in a few weeks. The scars of inherited syphilis of the eye were very plain.

The second case was twenty-four years old, and had had a sore on the thigh since he was five years old. He is the oldest of six children, two of whom died in infancy of meningitis—one has hip-disease. The patient shows the stigmata of syphilis in the eyes, ears and teeth.

The father of the patient has a funnel shaped chest, deafness, signs in eyes and teeth, his mother contracted syphilis before his birth. The patient is, then, an inherited syphilitic of the second generation.

Syphilis of the New-Born Treated by Injections of Insoluble Mercurials.

BARTHELEMY, LEVY-BING and SCHWAAB. (*La Syphilis*, Vol. II., p. 509.)

These authors published the results of their observations in the use of injections of soluble salts of mercury in the *Presse Médicale*, for October 31, 1903. Since 1882 Smirnoff has recommended injections of calomel for children as young as one or two years.

In 1891, Moncoro and Ferreira reported a certain number of cases from one to fourteen years of age, treated with injections of insoluble salts, calomel, yellow oxide, gray oil and salicylate of mercury. Soluble salts have the advantage of greater ease in regulating absorption and elimination, thus graduating the effect.

A distinct advantage of the insoluble salts from the patient's standpoint at least is the greater length of time between the injections.

In choosing this preparation, they favor gray oil. It is tolerated perfectly by the tissues, causes very little pain and is given in very small amounts.

They employed a 40 per cent. solution and calculated the dose in

centigrams of pure metallic mercury. Three cases are reported, treated at the clinic. Each case, during its stay in the hospital, was treated with daily injections of an aqueous solution of biniodide and the treatment kept up after leaving, by injections of gray oil.

CASE 1. Weighed 3,000 grams at birth, spleen and liver enlarged. Weight fell to 2535. grams in a few days; fever present. While it remained in the hospital, eleven injections of biniodide were given.

Spleen a little enlarged and baby pale on leaving hospital. Eleven days after it was brought back and was given an injection of gray oil 0.01 centig. of Hg. in the buttock. About two weeks later deep induration and slight fluctuation at the sight of the injection, but no puffiness of the parts and no diarrhœa. The authors attribute the induration and superficial softening to faulty technique; it was their first injection of gray oil in a baby and the solution was not thrown deep enough into the muscle tissues. The baby never came back.

CASE 2. This infant was preceeded by five still births and by a child born alive who died within a few days.

This baby weighed 3900 gr. In four days it fell to 3500. There was some fever present, but no diarrhœa. While in the hospital, this baby had nine injections of biniodide. Weight on leaving hospital on fourteenth day, 3965 grams, five days later the first injection of gray oil was given and they were kept up at intervals for six months. Third case showed nothing in particular.

In each case the injections were made intra-muscularly and as high up on the buttock as possible to prevent contamination with feces. They used a syringe with a long fine platinum needle; the skin was sterilized with ether and alcohol, and the point after the injection covered with collodion.

They determined the dose of gray oil in this way: from previous experience they had found that two milligrams of biniodide daily was perfectly well borne; this corresponds to 0.007 of Hg. for the eight days; therefore they began with a baby of fifteen days by injecting 1 centig. of Hg. in the form of gray oil. Aside from the first cases they made a total of eighteen injections with no untoward symptoms. Occasionally there was a little induration which disappeared in from eight to fifteen days. The injections are not painful and have not been followed by diarrhœa or other evidences of mercurial intoxication.

The following conclusions are drawn:

Injections of gray oil are perfectly well borne in the new-born. The injection must be made deep into the muscle tissue. With insoluble salts it is only necessary to make an injection once in eight or fifteen days.

The action seems to be more lasting and more protective than when the soluble salts are used.

The average dose of gray oil for an infant of two weeks is one centig. per week; at the age of two months, two centig. may be injected. In syphilis of the new-born they advise beginning with a course of ten to

fifteen injections of an aqueous solution of biniodide, then after resting for a week continuing treatment with injections of gray oil at lengthening intervals.

HYPERTROPHIES.

By E. C. JAGLE, M. D.

Hyperkeratoses, Pathology of the. FRANZ SAMBERGER. (*Archiv f. Derm., u. Syph.* Band lxxvi., Heft 2, 1905.)

The case described by the author belongs to those known as keratosis follicularis sec. (Morrow) and keratosis follicularis contagiosa sec. (Brooke). It is characterized by small black points on the skin, which pass into papular efflorescences and from some of which spiny processes project. When the comedo-like contents is expressed a gaping follicle remains. Histologically, the process consists of a hyperplasia of the epithelial cells with a modification in the keratinization, imparting to the cells greater persistence and cohesion. The changes in the corium are minimal. The writer gives a review of the literature on this subject and draws the following conclusions:

First—Keratosis follicularis is a disease sui generis.

Second—It arises through a hyperproduction and hypercohesion of the horny layers, which is microscopically demonstrable. These two pathological processes in the epidermoid portion of the skin produce all the clinical symptoms, and the obstruction of the mouths of the follicles need not be looked upon as the primary provoker of these changes, as in his case the reverse was proven.

The hair follicles are not the only nor the characteristic seat of the disease. The changes which occur during the course of the affection are secondary and the neighboring superficial skin is affected qualitatively and quantitatively by the same process as the follicle.

The author would suggest the name keratosis pseudo-follicularis for the condition.

Naevus Pilosus Pigmentosus and Other Skin Lesions Treated with Liquid Air. WILLIAM B. TRIMBLE. (*Medical Record*, July 8, 1905.)

In this article the author describes liquid air and mentions the good results obtained with it in hairy moles. He thinks there is no doubt of its beneficial effect in epithelioma, lupus and nævus pilosus pigmentosus. In nævus vasculosus there is slight improvement, but insufficient experience as yet prevents a more definite statement. The histories of eleven cases are given. The method of application is by the spray or swab, the latter having been used in the cases enumerated. The effect produced depends largely upon the degree of pressure. Light pressure causes a slight reaction and inflammation, all that is needed in some instances (erythematous lupus, for example). Medium pressure will cause a super-

ficial slough: this is the kind called for in the hairy mole. Hard pressure will cause deep slough (sometimes used on an epithelioma). A slight amount of scarring results in most cases, but the cosmetic effect is far superior to the original lesion and with care may be reduced to a minimum. Liquid air acts as a local anæsthetic and the only sensation produced is one of slight tingling or burning.

Lichen Pilaris, Seu Spinulosus. H. G. ADAMSON. (*Brit. Journ. of Derm.*, 1905, p. 39 and 77.)

The above title is given to an affection occurring chiefly in children, characterized by the appearance of fine projecting filiform spines, arising from pilo-sebaceous follicles, the mouths of which are raised into small, acuminate, pale or pinkish papules, and arranged in groups on the various parts of the limbs and trunk. It is unaccompanied by itching or other subjective sensations, and there is little or no disturbance of the general health. The writer reviews the literature and the various nomenclature of this disorder and calls attention to the confusion of lichen pilaris with keratosis pilaris and gives a history of the affection in England with a record of the reported cases: also a history of the cases in France, although the condition is not so well known there and is apparently not recognized as a distinct entity. The cases recorded in France have been described under different names. The *acné cornée* of Hardy and of Leloir and Vidal, and possibly also of Guidout is the same disorder, but the cases of *acné cornée* observed by Hallopeau, with the exception of one case, viz., *acné cornée en aires*, do not quite correspond to the English cases of lichen spinulosus. Other cases have been published by Barbe as examples of *kératose folliculaire* (type de Brooke) and just recently a case by Audry under the title *kératose pileaire engainante*.

In addition to the typical cases of lichen spinulosus in children, where the spiny lesions constitute the whole eruption, there are other cases in which such lesions are associated with an eruption of lichen planus. Although this association may occur rarely in children, it is more common in adults. In the latter the occurrence of the spiny lesions seems to be usually, if not invariably, associated with lichen planus. This fact would seem at first to suggest some etiological connection between the two affections, but further consideration shows that the purely spinous cases of children are without the subjective sensation of itching, while those associated with lichen planus do usually present this symptom. Moreover, the spiny lesions in these latter cases are usually associated with the acuminate follicular lesions of lichen planus, and it is most probable that they have therefore merely an accidental association with a perifollicular disturbance. Such an hypothesis is made more probable by the fact that similar spines are occasionally associated with the follicular lesions of lichen scrofulosorum and miliary syphilide and also with those of pityriasis rubra pilaris.

Histologically, the lesions of lichen spinulosus in children show that the pathological process is essentially a hyperkeratosis of the follicle: perifollicular inflammation is absent, or at any rate very slight.

Hyperkeratoses, A Contribution to the. F. BERING. (*Archiv f. Derm. u. Syph.*, Band lxxvi., Heft 3, 1905.)

Clinical observations that hyperkeratosis congenita and ichthyosis cannot be sharply separated one from the other led to the author's work on anomalies in cornification. The histology of the former is gone into very minutely, the interesting point being the rôle that the sebaceous glands appear to play in this affection. Structurally, they show but little if any change, but their number bears a direct relation to the thickness of the stratum corneum. Where there are very few the overlying horny layer is proportionally thinned, and conversely, the greater the number of glands, the greater the increase in thickness of this layer. No explanation for this is to be found in the appearance of the glands. The hair follicles are the most altered of the appendages and contain no hairs. The stratum corneum is separated from the tissue below by a sharp line of demarcation, no horny masses appearing deeper in the epidermis. The author asks whether this is due to a sudden nutritional disturbances or if it is influenced by the nervous apparatus, perhaps disease of the same.

In ichthyosis the corium is sclerotic, the coil glands are reduced in number and the sebaceous glands still more so, while hair follicles appear only sparingly throughout the sections, the hairs here also are missing. The horny layer, of course, is the one principally affected, although the Malpighian layer is thinned and has degenerated nuclei, while the strata granulosum and lucidum are lacking. Contrary to that in hyperkeratosis congenita, the stratum corneum is made up of several laminae.

The article contains the technic for demonstrating horny cells, and after employing the various methods to determine whether the hypertrophy bore any relation to physiological cornification or allied conditions, the author comes to the conclusion that transition stages exist and a dividing line cannot be placed between the two diseases.

INFECTIVE GRANULOMATA.

By H. G. ANTHONY, M.D., Chicago.

Coccidioidal Granuloma. OPHUELS. (*Jour. A. M. A.*, 1905, xlv., p. 1291.)

This is a term which the author has coined to designate the "California" variety of blastomycosis.

Dermatologists of California believe that the cases of blastomycosis which they observe differ from the cases observed in the central and

eastern parts of the United States. They therefore apply the name "dermatitis coccidioides" and now this new term "coccidioidal granuloma," to the California variety of the disease, and they designate the cases observed in the central and eastern states, by the term "blastomycetic dermatitis," while observers in the central and eastern states, believing that there is but one form of the disease, employ the term "blastomycosis" to designate all cases.

The term "blastomycetic dermatitis" is absolutely obsolete outside of California.

The author adds no new proof to what has already been said regarding the individuality of dermatitis coccidioides; he simply reiterates the points raised by D. W. Montgomery. (*Trans. Am. Derm. Ass.*, 1904, p. 92).

The author states that the difference between granuloma coccidioides and blastomycetic dermatitis is that the later disease, with one exception, has been exclusively limited to the skin, while in the former, there was a generalized infection in most cases, thereby overlooking the fact to which F. H. Montgomery directed attention in the discussion of D. W. Montgomery's paper (*Trans. Am. Derm. Ass.*, 1904, p. 92), namely that there were on record at that time, not one but four cases of generalized blastomycosis.

The author reports three new cases of coccidioidal granuloma.

Blastomycosis of the Skin and Its Relation to Folliculitis Exulcerans Serpiginosa Nasi of Kaposi. BRANDWEINER. (*Arch. f. Dermat. u. Syph.*, Vol. 71, p. 49.)

The patient was a man, thirty-seven years old. He presented himself with a lesion limited to the left side of the nose. The surface was red and infiltrated with a well marked outline; on the border of the patch, nodules were present, they were pin-head in size and larger, brown-red in color and most of them had a small, central pustule. There were also a few papulo-pustules in the healthy skin.

The central part of the patch showed papillary vegetations and scar tissue, and ulcers of linear form. The ulcers were between papillary growths and presented an uneven base; they were covered with brownish crusts, after the removal of which, the yellow or green base of the ulcer bled and was somewhat painful to the touch.

The papillary growths between the ulcers were cauliflower in character, they were bright red in color and but slightly elevated. The scars were small and scattered between the ulcers and vegetations; they were stellate in shape, depressed, non-pigmented, bright red, or white and soft. Nodules such as are present on the border of the patch were also found scattered between the scars.

The disease had existed six months. His illness began about one year previously with a feeling of discomfort in the right side. On admission to the hospital, he was pale, anæmic, exceedingly weak and he had

some temperature. Marked œdema was present in both ankles, feet, face and arms; his nails were clubbed and moderate inguinal adenopathy was present.

Blastomycosis with Blastomycetes in the Sputum, A Case of Systemic.

D. N. EISENDRATH and O. S. ORMSBY. (*Jour. A. M. A.*, 1905, xlv., p. 1045.)

This is the first case to be reported in which blastomycetes were found in the sputum. The authors emphasize the fact that the miliary nodules of blastomycosis, which occur in visceral organs, resemble those of tuberculosis so closely, both clinically and pathologically, that it is necessary to eliminate tuberculosis with great care.

The patient was suffering with a constitutional disease, as evidenced by the clinical symptoms with involvement of the lungs, kidneys, skin and subcutaneous tissues. The infection probably began in the lungs, as it often does in generalized blastomycosis.

Although tuberculosis was simulated, the tuberculin injection was negative and no bacilli could be found microscopically, culturally or by animal inoculation. The organism of blastomycosis was demonstrated abundantly in cutaneous lesions, subcutaneous unruptured abscesses, and the sputum. From unruptured abscesses, it was obtained in pure culture. Although potassium iodide produced an improvement, the patient is far from well.

Local lesions of blastomycosis were produced in guinea-pigs, but they healed promptly, no general infection resulted, and no tuberculosis could be found on postmortem examination.

A review of the previously reported cases of generalized infection and the history of the case are given. The article is well illustrated.

Actinomycosis of the Skin, A Case of Primary.

DOUGLAS-CRAWFORD.

(*Lancet*. 1905, p. 156.)

While on the homeward voyage from the Amazon with a load of cattle, a ship's surgeon bruised the lower part of his thigh, a little above the knee. Within a fortnight, two small papules appeared over the bruised area, but remained stationary for some time.

The papules were associated with what the patient regarded as cellulitis and he began taking morphine hypodermatically, gradually increasing the dose until he was taking eight grains per diem. Three months later, the disease began to extend upward and finally it extended to the body.

When he entered the hospital, he was emaciated and tremulous from morphine, and his urine contained a trace of albumen. The affected skin was purplish in color, indurated in some parts, and œdematous in others. Small sinuses were scattered over the affected area and here and there were seen pustular elevations, any one of which, upon pressure, discharged a greyish colored pus, and left a narrow superficial burrowing sinus.

The disease could only be syphilis, tuberculosis or actinomycosis; the author was so sure that it was the latter, that he excised the entire diseased area before the microscopical work on the case was completed. Mycelium imbedded in hyaline material was found.

The rapid spread of the disease and the constant appearance of new foci, was due to autoinoculation with the hypodermic needle used in making hypodermic injections of morphine. The disease was limited to the skin.

(Primary actinomycosis of the skin is one of the rarest forms of the disease. The first case reported was the Neisser-Lion case. (*Archiv Vvol.* 51, p. 312), which at first view, Neisser thought was a papulopustular syphilide. In Stelwagon's text-book and in Boehm's article (*Archiv*, Vol. 59, p. 393) will be found references to the remaining literature on the subject.)

BOOK REVIEWS.

The American Year-Book of Medicine and Surgery for 1905. A yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged with critical editorial comments, by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A. M., M. D. In two volumes. Volume I, *General Medicine*. Phila. and London: W. B. Saunders & Co., 1905.

The 1905 issue of Gould's Year-Book has this great value for the busy practitioner in this day of multitudinous contributions to medical literature, of being a critical digest of the most valuable advances in the subjects treated. The department of Cutaneous diseases and Syphilis, under the charge of Prof. Louis A. Duhring, shows a careful survey of the numerous contributions to this field, particularly in phototherapy and radiotherapy.

Diseases of the Skin. Their description, pathology, diagnosis and treatment, with special reference to the skin eruptions of children and an analysis of fifteen thousand cases of skin disease. By H. RADCLIFFE-CROCKER, M.D. (London), F. R. C. P., physician for diseases of the skin in University College Hospital, honorary member of the American Dermatological Society, etc. Third edition, revised and enlarged. Special illustrated edition, with seventy-six plates and one hundred and twelve illustrations. Two volumes. Phila., P. Blakiston's Sons & Co., 1012 Walnut Street, Philadelphia, Pa., 1905.

The third edition of this work was reviewed in the July, 1903, issue of this JOURNAL. The great demand for the work has necessitated its republication with the text practically unchanged, but its division into two volumes, and the addition of seventy-two plates has greatly added to its value. With few exceptions the half-tone illustrations on heavy inserts are up to the highest standard of excellence and serve all the purposes of more expensive colored plates.

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AN EPOCH IN THE EVOLUTION OF AMERICAN MEDICAL EDUCATION—THE ALMOST GENERAL RECOGNITION OF DERMATOLOGY IN THE CURRICULUM—THE NEED OF CLINICAL CONCENTRATION

By WILLIAM THOMAS CORLETT, M.D., Cleveland.

Being the presidential address delivered before the twenty-ninth annual meeting of the American Dermatological Association, New York City, December 28, 29, 30, 1905.

Gentlemen:

In opening the 29th annual meeting of the American Dermatological Association, it is my pleasant duty to extend to you in the name of the Association, a cordial greeting.

After an absence of twenty-six years the Association meets again in this metropolitan city. During this time it has been particularly fortunate in losing but five of its active members by death and we are honored by having with us its first president and several of its charter members. While the Association during this period has maintained the high standard established by its founders, and in striving to attain the highest ideals in its special field of medicine, has been thus favored, it has further had the satisfaction of observing great changes take place in the medical educational institutions of our country. While many things remain to be accomplished in medical education, yet much has been done. The requirements for admission to medical schools have been raised, until the epithet of *learned profession* no longer provokes a smile of derision. The course of study has been lengthened and greatly enriched, by the addition especially of histology, bacteriology and pharmacology. Laboratory and bedside instruction have largely supplanted didactic lectures. A post-graduate hospital service, so necessary to fit one for active practice, is now within the reach of all who are able to pass the final examinations in any of the leading medical schools. A

quarter of a century ago, to be well-equipped in medicine, it was necessary to supplement the two courses of didactic lectures of which the curriculum usually consisted, by two or more years study in foreign parts; while to-day probably more than half a dozen American institutions offer facilities not inferior to those in the medical centers of Europe.

During the period of which I speak, especial attention has been given to the study of pathology. Improved laboratory facilities have made possible the indefatigable labor that has been done in histology and bacteriology, while the latter during this time has been established as one of the natural sciences. While a thorough grounding in these biological studies is now *necessary* to the student in general medicine, on account of the exposed position of the skin to various extraneous organisms, and because the skin sometimes offers a fertile field for their growth, a thorough laboratory training in these branches is *essential* to the student in dermatology. Their importance is generally recognized, and it requires no vivid imagination to foretell the great practical good that will arise when the subjects now under investigation are better understood. The status of actinomycosis and the ray-fungus affecting man, was finally established by Pomfick in 1879. To American dermatologists must be given the credit of setting forth the claims of blastomycosis cutis as a distinct affection. Although the bacillus of tuberculosis had been demonstrated in cutaneous lesions before the Association last convened in this place, yet the symposium at which the subject was so ably presented before this Association in 1891; and the discussion on the general subject of tuberculosis of the skin, opened by another of our distinguished members at the Third International Dermatological Congress in 1896, did much towards clearing up this important and intricate subject. The discussion on the rôle of the pus organisms in the production of skin disease, which took place before this assembly in 1899 is still fresh in your memory. It revealed to us the immensity of the subject and the amount of labor that has already been done to elucidate this important problem. The most important results in this department during the last decade of the nineteenth century, I believe, were obtained by Sabouraud in differentiating and classifying the ringworm fungi. More recently I may call attention to the light that has been thrown on variola and vaccinia, which promises to prove of practical application in differentiation and prophylaxis. During the past year strong hopes have been entertained that the essential principle in the propagation of syphilis had been discovered. There

is, however, a difference of opinion concerning the rôle the spirochæta pallida of Schaudinn and Hoffmann plays in this disease.

But while we cannot emphasize too strongly the importance of pathology, yet something more is required to make the physician—to make the dermatologist. Recognizing our first duty in seeking for the cause and condition which constitutes disease, of drawing logical deductions and of making accurate observations, yet in the meantime we must not wholly lose sight of the peculiar and immediate needs of the patient.

Of late, pharmacology has received more attention on the part of the medical educator, and is assigned a more important place in the curriculum of the leading medical schools. The need, I believe, is urgent, and in no department of medicine does this apply more strongly than to that of dermatology. A better understanding of the art and science of medicine, together with other therapeutic measures at our disposal will better enable the physician to act independently and to take the initiative. I believe the theory of therapeutics, with pharmacology and materia medica should be taught in the laboratory by one especially trained, who can devote his whole time to this department, as is now done in some schools, while the practical application of this knowledge should be left to the various clinical chairs.

The gibes that one hears expressed in intelligent medical circles, as to the nomenclature and therapeutics of skin diseases, may have some foundation in fact; the former we will not consider, being an heritage and an evidence of the antiquity of our specialty, while the latter may be an outgrowth of our shortcomings. A very large number of probably otherwise well-equipped medical men, who will not refuse the responsibility of treating diseases of the skin, divide them, so far as therapeutics go, into two classes, viz.: those that are cured by zinc ointment, and those that are not. While the vast majority of medical men and especially those who have not had the advantages of modern hospital training, rely almost wholly in this department on the literature emanating from the manufacturer and vender of cure-alls, who reduces the mental effort of memorizing to a minimum by giving to his wares some suggestive or euphonious name.

While the labors of the council on pharmacy and chemistry of the American Medical Association, whose duties consist in passing on the ethical merits of proprietary remedies from a pharmaceutical and chemical standpoint, is to be commended in the highest terms, and

while the exposures already made will do much towards mitigating the nostrum evil in the medical profession, yet more is required to counteract the baneful influence both to the medical profession and to the laity, who too often blindly accept fake nostrums vaunted by a subsidized medical and lay press.

Better training in medical schools, and the encouragement of practical instruction to the laity through the press, under the patronage of the universities, or other public bureaus of education now in vogue, will do much towards alleviating a condition which is detrimental to a high medical standard and which is endangering the lives and health of the American people. Especially to be commended by all who love their fellow men, is the educational stand taken by the editors of the *McClure's Magazine*, *The Ladies' Home Journal*, *Collier's Weekly*, *The New York Weekly Post*, and a few of the great dailies.

With a higher status of the profession of medicine, which I think better equipment and a higher standard of teaching will bring, the question before us to-day is: What further may we as members of this profession do to contribute to the general advancement, and to the advancement of dermatology?

American dermatology does not extend far beyond the work of the man still living. The high standard established by its pioneers and the formation of this Association, the first of its kind, should serve as a stimulus to even greater exertion on the part of the younger men. While this department is making steady progress and has already attained high distinction in the principal medical centers, there remains much to be done throughout the country.

When the Association last met in this city, it was three years old, with a membership of thirty-six, coming from twelve states and the District of Columbia. It now has fifty-three names enrolled, representing the dermatology of twelve states, the District of Columbia, and the Dominion of Canada. Of the twelve states represented in 1879, Kentucky, Arkansas, Minnesota, and South Carolina, have dropped out, while members have been elected from Ohio, California, Louisiana, and Canada. Twenty-five states having about fifty-eight regular medical colleges are not represented in this Association. The provinces of Canada with about seven medical schools have but one representative.

Dermatologists must be limited to the larger centers of population, and even here on account of the relation of the family physician,

many skin diseases as they occur will be seen and treated by him. In small towns and in vast sections of the country, he constitutes the highest available authority. Recognizing this condition, it is our duty to emphasize the importance of this department of medicine, and continue to urge the study and teaching of dermatology in medical schools.

In 1890 the progress made during the fourteen years preceding was forcibly set forth from this chair. It was shown that the number of medical colleges in which dermatology was taught, had increased from twelve schools in 1876 to seventy-five in 1890. It is difficult to obtain trustworthy and unbiased testimony on this subject, but basing my information on college catalogues, there are comparatively few schools to-day which do not make some show of giving instruction in this department. Although dermatology has undoubtedly awakened keener interest and is better taught as a whole than it was fifteen years ago, yet the character of the teaching in many schools, I believe, leaves much to be desired. We have reason to believe that the spirit of scientific medicine will replace the utilitarian epoch even here, and that it will be effected in the natural evolution of the American medical college. The most striking features of the changes now going on, may be expressed in two words, elimination and amalgamation. According to recent statistics, the medical schools of this country show during the past year a marked decrease in the number of students, some schools more than others, which is the most important factor in elimination. At the same time the scientific spirit which dominates some of our great universities has gone forth, attracting the youth of higher educational attainments, while the less desirable are repelled. In this way many proprietary schools depending on students' fees for maintenance have been compelled to close their doors. Again, in this period of associate endeavor, many medical colleges have found it better to amalgamate forces and form one creditable school than to continue to struggle one among several moribund institutions of a small city.

Finally, more difficult seems the task and of greater importance in training men to become efficient in dermatology—or, if they choose, by continuing, to become skilled in this department—is the concentration of clinical material. Teaching institutions that have passed through the primary or formation stage, yet have not secured endowment for clinical chairs, have this to contend with. What a veritable Mecca of dermatology might be built up here in New York

City if the various diversified interests were concentrated under one well organized institution. This applies even with greater force to clinical material in the lesser centers of population.

To make these desirable changes, wise and liberal endowments are necessary. Their effect is already apparent in certain quarters and there are hopeful signs in others. I believe, therefore, that the high place dermatology already occupies in the leading medical schools of the country, will be adopted by all medical colleges worthy the name.

One other point in closing these cursory remarks before taking up the scientific part of the programme, refers to the various, and I fear, varied state boards of medical examiners. They are, for the most part, political creations, dominated by the influences which prevail in the various communities in which they are found, and their efficiency must, therefore, to a certain extent, rest with the people at large. With high attainments, which the personnel of these boards should possess, accompanied by an exalted and earnest purpose, they have almost an unlimited power for good. When we consider how much has been done throughout the country during the past few years, we may feel reasonably assured that in the near future the more common diseases of the skin will receive the consideration at their hands which the importance of the subject demands. In the meantime, without vain boasting, I think we, as members of this Association, may justly congratulate ourselves on the work already done in promoting the study of dermatology in all its relations.

A STUDY OF SOME CASES OF EPIDERMOLYSIS BULLOSA WITH REMARKS UPON THE CONGENITAL ABSENCE OF ELASTIC TISSUE ¹

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THE literature upon epidermolysis bullosa has become quite voluminous, and the number of reported cases are rapidly increasing, showing that the disease is not so infrequently encountered as one would suppose. We submit our notes upon the following cases, as they uniquely illustrate the various types of the affection, and might possibly contribute to its etiology.

CASE 1. Vincenzo V. Age eight years.

Patient was admitted to the New York Skin and Cancer Hospital in July, 1903, under the service of Dr. L. Duncan Bulkley, to whom we are indebted for the privilege of reporting this and Case 2. Family history: Patient's parents, two brothers and one sister living and in good health. He has had no serious illness, although the shape of the chest suggests rickets. There was no history of a similar trouble in the family. The present condition began when the patient was about six and one-half years of age. The first lesion occurred in the form of a small bleb, which followed a scratch on the back of the hand. Shortly after this, similar lesions were noticed on the forearms, and later upon the ankles and feet. No pain or pruritus followed the appearance of the lesions, and the general health was not affected. The mother stated that it was soon noticed that the lesions occurred after traumata, such as striking a chair, etc.; and she remembered that a mild whipping, at one time, was followed by a number of large-sized bullæ. When the patient entered the hospital, the entire body was covered with impetiginous crusts, excoriations, and a few blebs resembling a general impetigo contagiosa. The bullæ were filled with serous and sero-sanguinous fluid. The physical condition of the child was poor. In a few weeks, under daily treatment of bichloride of mercury baths (1-20000), the inflammatory or secondary processes subsided, and the primary con-

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dition could then be determined, which showed in all its phases typical symptoms of epidermolysis bullosa. Upon experimentation, the lesions could be produced upon any portion of the body, by vigorous rubbing with a dry towel, or by striking the surface severely. In a few moments after such a trauma an erythema appeared, followed in about five minutes by slight tumefaction, and later by a wheal. The center of the lesion would then become elevated, paler, and gradually a bleb would form, thus requiring from twenty to thirty minutes from the time of the injury for the complete formation of the bullous lesion. By grasping a fold of the skin firmly, on any portion of the body, between the thumb and index-finger, and at the same time using severe traction, the epidermic layer would suddenly give away and slip off from the underlying tissues in the shape of the figure 8, leaving an oozing surface similar to that left by one of the bullæ. This experiment was tried upon four cases of pemphigus vulgaris, with no resultant epidermal tearing. The nails and hair were normal, and there were no cicatricial or pigmented areas. No lesions had occurred upon the mucous membranes. On the ears, face, lips, and dorsal surfaces of the hands were numerous milium-like lesions (epidermic cysts). These were arranged in groups of from five to a dozen, and many isolated ones were scattered over these areas and also over the trunk. They seemed to be more numerous at times. On the edges and superior surface of the tongue were scattered small bright red telangiectatic lesions, about the size of a lentil. These would disappear and reappear over the surfaces described, but there were always three or more present during the time the child was under observation (fourteen months).

Arsenic was tried with apparent improvement in the condition.

CASE 2. Philipina D. Age six years.

Patient was treated in the clinic of the New York Skin and Cancer Hospital, under the service of Dr. L. Duncan Bulkley. She was observed weekly for several months. Patient's mother and father living and healthy, also an older and younger sister. No history of a similar case in the family. Mother stated that the child is very nervous and cries easily. She has had two severe attacks of pneumonia, and a mild attack of measles, during which time the present skin trouble was no worse. Patient is subject to chilliness, and remains indoors in cold weather, and has for years frequently been subject to afternoon temperature. Two days after birth a bleb was noticed on the right toe; in a few days the body was covered with blebs of various sizes. At the present time, scattered over the body

are vesicles and blebs of various sizes, filled with serous and sero-sanguinous fluid, upon a non-inflammatory base. Miliun-like lesions (epidermic cysts) are grouped over the knees, ankles, hands, ears, and the mucous membranes of the lips. On the tongue are bright red telangiectatic lesions, similar to those in Case 1. Mother stated that they had been present since birth and had been more numerous in former years. Bullæ could be produced by trauma, and the epidermis could be removed between the finger and thumb by severe traction as described in Case 1. The nail of right great toe had disappeared, and a cicatrix was present at the site of the first lesion after birth. The other nails were dystrophic. Numerous cicatrices were scattered over the body, the sites of former lesions. The hair was thin, fine and dry. There was temporary improvement under arsenic.

CASE 3. A. K. Age eight years. Private case.

Patient is a small, poorly nourished child, but his mother states that he is usually well. No history of a similar disease in the family. A few hours after birth a blister was noticed on the thumb. The next day one appeared upon the sole of the foot, and since that date they have been occurring over the joints, hands and exposed portions of the body, and are only produced by trauma. The mother is quite certain that the child was born with a bulla upon the thumb, as it was the first thing noticed by the attendant. The hair is thin and dry. Nails are rudimentary and dystrophic. Teeth are good.

CASE 4. Miss X. Age seventeen years. Private patient.

The family history of this patient was clearly and distinctly given by her mother, who had suffered with the same complaint. The history thus given is as follows: Mother's father affected; mother's paternal grandfather; mother's paternal great-grandfather. The patient had a brother and sister also affected, although the mother had had other children not affected. Numerous affected cousins were cited. Mother had suffered from the same complaint until the age of seventeen or eighteen, when it gradually became more localized, and finally disappeared, but the date of its final disappearance she does not exactly remember. She is, however, certain that she has had no symptoms for many years. Nails of the mother were dystrophic, and the skin on the back of the hands and knuckles was thin and atrophic. It was well known in the family that this tendency to bullous formation, upon slight traumata, began about the second year, and generally lasted throughout life. In the mother's case, however, this was an exception.

As usual in this family, the disease began in this family about the second year. Patient had always enjoyed good health with the exception of skin affection. When younger, this condition was much worse, and seemed to be gradually growing more localized and less severe. At present upon the legs and hands are excoriated and crusted surfaces with here and there bullæ of various sizes, filled with serous and sero-sanguinous fluid. On the knees, elbows, ankles, and also about the lips, can be seen whitened surfaces which upon close examination prove to be thin papery cicatrices. About the elbows and knees, however, these were somewhat pigmented. The patient states that the legs, at the present time, are worse, as she had a severe fall down the steps, striking them repeatedly. On the neck, fingers, wrists, knees and ankles are grouped milium-like lesions (epidermic cysts). Nails are dystrophic. Hair unusually luxuriant and beautiful. Teeth normal. A lesion was produced, experimentally, upon the thigh by a sharp rap with a ruler. The bulla appeared within twenty minutes. The bullæ were usually filled with serous fluid, but when trauma was intense it became sero-sanguinous. They were usually preceded by itching, and sometimes by a great deal of pain, which was relieved by puncture. Frequently trauma would not cause a bulla, but a lesion similar in its appearance to that occurring in polymorphic erythema. Upon the back of the hand and on the knees were grouped vesicles and pustules arranged in a brooch-like manner, around the disappearing or involuting central lesion (bullæ), this being surrounded by and upon an erythematous base, evidently produced by secondary accident or infection. This case also seemed to improve under arsenic. Unfortunately, however, she ceased her visits in too short a time for the confirmation of this fact.

HISTOLOGY

The material for this purpose was obtained from Cases 1 and 2.

A bulla, the size of a split-pea, produced artificially by friction with a rough towel on the outer side of the leg, and a piece of the normal skin from near the same region, were excised *under chloroform anæsthesia*, four hours after its production. A second bulla, two days old, was excised from the same case. A small milium-like lesion (epidermic cyst) was excised from the forefinger of Case 2, under cocaine anæsthesia. These were immediately fixed and hardened in alcohol, mounted in paraffin, and stained by the following methods:

Hæmatoxylin-eosin,

Hæmatoxylin-van Giesson,
Polychrome methylene blue, ac. tannic,
Ac. orcein, hæmatox.,
Ac. orcein, thionin,
Ac. orcein, polychrom. meth. blue,
Polychrom. meth. blue, glycerine æther,
Polychrom. meth. blue, neutral orcein,
Polychrom. meth. blue, orange tannin,
Weigert's elastic tissue stain, alum carmin,
Weigert's elastic tissue stain (alone),
Safranin-Wasserblau,
Pappenheim's pyronin-methyl green, resorcin,
Mallory's connective tissue stain.

Normal Skin.—As a whole, the section may be said to be œdematous. The horny layer is of a vesicular and succulent appearance. The granular layer is normal. The rest of the epidermis takes the stain feebly and is œdematous. The inter-papillary rete pegs are swollen. The interepithelial channels are widened, and the prickles stretched, but nowhere are they broken. The nuclei throughout take the stain feebly and a few mytotic figures can be seen. Now and then a vesicular nucleus is found. On account of this œdema a few amitotic divisions of the nuclei are seen, some nuclear cavities contain from two to four nuclei; these take the stain deeply. The principal changes are seen in the basal layer of the epidermis, the first three rows being the most markedly involved. Here numerous balloon-shaped cells occur; the nuclear space first becomes dilated, and the protoplasm of the cell degenerates and drops to the bottom of the cavity thus formed, until the nuclear framework is lost, when it also falls into this cavity. Some of these nuclei take the stain feebly, while others stain deeply (alteration cavitaire of Leloir; colliquation of Unna). These changes occur in patches throughout the basal layer of the epidermis, as described by Schmidt. Absolutely normal cells may be seen surrounding a degenerated one. We do not, however, find the changes in the basal layer, as described by Elliot. The cells, although œdematous throughout, take the stain faintly, yet they do not seem to be in a state of degeneration, except those involved as before mentioned. In certain regions of a section, specially near the sweat duct, as many as from fifteen to twenty cells can be seen in one field, with a 1-12 oil immersion, undergoing colliquation, as above described, which is almost, we might say, the rule in œdematous conditions of the epidermis. In

no part of these sections have we seen granular degeneration of the basal layers of the epidermis; on the contrary, the lower layers seem to take the stain more deeply and in a more tinctorially correct manner than the upper layers, as the upper layers are possibly more continuously bathed in serum, on account of a constant damming back of it by the granular and horny layer. The basal layer is in every location sharply defined against the œdematous cutis. A few wandering cells occur in the epidermis. Now and then in the normal skin can be seen little spaces, between the epidermis and the cutis, which are probably very much dilated lymph spaces, but suggest to one a slight separation between the two structures. At these points there do not seem to be more marked histological changes than seen elsewhere. Therefore, these spaces may be artificially made in the preparation of the sections. We might say that the cells are pressed laterally in the basal layer into rather thin plates, due to the œdema, and the lateral pressure by the papillary pegs.

Cutis.—The upper portion of the cutis is succulent and œdematous. The lymph spaces and vessels are widely dilated. The bundles of collagenous tissue are pushed apart, and with a darkened field, numerous dilated lymphatic channels can be seen. The slight pressure exerted between the horny layer and the epidermis, as shown by the configuration of the epidermic cells, shows the succulent nature of the cutis. About the vessels there is a slight increase beyond the normal of cellular elements; these are mostly lymphocytes and connective tissue cells. A few mast cells can be seen in certain localities. The spongiosoplasm of the connective tissue cells is swollen, and these cells can be beautifully traced in polychrome sections. Lower down in the cutis there is not so much œdema, but the vessels show quite an increase of cells in the lymphatic spaces about them, and are markedly dilated. A few epidermic cells of the sweat ducts present colliquation; whereas the glands seem to be normal. With the exception of a slight increase of cells about the vessels, and the dilated condition of the lymphatic channels, we do not find in the sections of the normal skin the amount of perivascular change, as described by Stanislawski. In fact, the cutis shows changes which one would expect to find in acute œdematous conditions, and it may be possible that the rapid manner in which these sections were excised, was sufficient injury to cause this acute and rapid œdema. The most marked feature seen in these sections is an apparent *absence of the elastic tissue* in the papillary and subpapillary regions of the derma. Upon the early study of the sections this fact was at once

observed, and we proceeded in the preparation for elastic tissue, in the most cautious manner possible. Control sections with the same stains were made of pemphigus, bullous lichen planus, eczema, and other œdematous conditions for comparison. Sections were placed in acid orcein for twenty-four hours, in an incubator at 37 degrees centigrade, and left in Wiegert's elastic tissue stain solution for from twelve to fifteen hours. In none of these preparations could more than a few diminutive threads of elastic tissue be demonstrated in the regions mentioned. In the deeper portions of the cutis, elastic tissue could be demonstrated, but in markedly diminished quantities. The fibers were shorter, thinner and not so wavy as normally seen, and many of them were pointed. They seem to be strong, however, as they stand a good deal of tension in the pushing apart of the collagenous bundles. About the vessels the elastic tissue has not the wavy appearance, and the bundles are smaller than normal, and do not decussate into the tissues, as usually seen. The wavy mesh-work just under the epidermis, described by many authors, beautifully seen in sections stained by Weigert's elastic tissue stain, is entirely absent. No fibers at all could be demonstrated mounting into the papillæ.

To sum up, we find in the normal skin, which is always of the most interest and importance in the study of epidermolysis bullosa, the following conditions: Œdema of the epidermis; succulent horny layer; normal granular layer; colliquation in many cells of the basal layers of the epidermis; dilatation of the intercellular channels. No vesiculation, or marked degeneration of the epidermis, and only changes which could be ascribed to œdema. Œdema of the cutis; dilation of the lymphatic channels and vessels, most marked in the upper portion; papillary pegs therefore swollen; slight increase of cells about the vessels; *absence of elastic tissue in the papillary and subpapillary regions of the derma, and sparsely distributed and deformed in the deeper regions.*

Bulla.—The bulla, in our section, occurred by the lifting up of almost the entire epidermis from the derma. Along the floor of the bulla there runs its entire width, a narrow line of flattened epithelial cells, which have resisted the flow of serum. The long diameter of these cells is parallel with the floor. The rest of the floor consists of the remains of a sweat duct and naked papillæ. The roof of the bulla is composed of the remainder of the epidermis. The bulla contains many naked epithelial nuclei, degenerated epithelial cells, a few leucocytes, lymphocytes, granular debris and fibrin. Sections taken

from the edge of the bulla show where the force of the serum has dissected in between the layers of the epidermis, making the outline of the bulla egg-shaped, thus demonstrating that the epidermis had successfully resisted being lifted in its entirety by the outflow of serum, and that it gave way at its weakest point after the serum had gained access to its structure; thus, at the edge of the bulla the epithelial cells, under these conditions, are not markedly degenerated, and only those lining the bullous cavity, show marked retrogressive changes. About the bulla numerous mitoses can be seen, showing that even at four hours after the injury, the tissues are making an effort at repair. The epidermis about the bulla is deepened, the depth diminishing as we proceed from the bulla. Colliquation of the epidermis in the bullous section is not more marked than in those of the normal skin of this case, showing that this is produced more by slow processes of œdema than by the acute outrush of serum. Certain sections, taken from the center of the bulla, show portions of the cutis clinging to the uplifted epidermis. In these bullous sections there is a marked increase of cellular elements about the vessels, which are enormously dilated. The lymphatic spaces form little lakes. Lymphocytes and mast cells are numerous about the vessels, in fact, throughout the cutis. With the exception of leucocytosis, the whole appearance of the section is that of an acute inflammatory condition. *The elastic tissue in the bullous section is absent in the same region as noted in the normal skin of this patient, and presents only those changes due to œdema.*

In the sections left over night in acid orcein, a few fine stunted fibrils can be seen in the papillary and subpapillary portions of the cutis. Deeper down in the section where it is more profuse, the fibers are similar in their arrangement to those in the sections of the normal skin.

Milium-like Body. (Epidermis Cysts.)—The epidermis of this specimen was separated by the injection of cocaine. Situated in the upper part of the section, in the papillary region is a large body, more or less oval in shape. This body presses upon the cutis below and laterally, changing the anatomical relations of that vicinity. It is surrounded by horizontally arranged bundles of connective tissue, forming a connective tissue envelop, in which there are *no elastic* fibers. Within this are several rows of flattened epithelial cells. These two membranes form a cavity which is partially filled with concentric layers of cornified epithelium, which are arranged in the cavity in wavy concentric bands, but do not entirely fill it, as some

have probably dropped out in the preparation. As we approach the center of this cavity, a granular, homogenous detritus can be seen. Some portions of the epithelial wall contain vesicular nuclei. As the sections advance towards this structure, a sweat duct, leading up to it, can be demonstrated. Therefore, it seems to us that our findings are similar to those of Darier and others, who concluded from histological investigation, that the so-called epidermic cysts were formed from an obstructed sweat duct. The epidermis, as we said before, is missing in this section. The vessels and lymphatic spaces in the cutis are dilated and the cellular elements are increased. The *elastic fibers* in the papillary and subpapillary portions of the cutis are *exceedingly scarce, deformed and fine, and in some fields are entirely absent*. Deeper down in the cutis they present the appearance described in sections from the other case.

We would like very much to enter upon a full discussion of the cases here reported, and of the histological findings, but the time will not permit us this pleasure.

The history of epidermolysis bullosa, from the time of its first description of Goldscheider, Wickham Legg, and Köbner, is marked by the articles of Hallopeau, Elliot, Tilbury Fox, Beatty, Bowen, Rona, Colombini, Wende, Stanislawski, and many others. From a clinical standpoint, there seems to be two types of this disease; a simple form, in which only bullæ occur, produced by trauma, and that of Hallopeau, in which we have also cicatrices, milia and changes in the nail. In our four cases, the first and third were typical of the simple form, while the second and fourth were of Hallopeau's dystrophic type. The latter type, from the description of the cases of Wende and Hoffman, must be extended to include certain changes in the hair, and also, to possibly include certain conditions of the eye, as described by Pernet. Similar lesions to those found upon the skin, occur in the mouth, as cited by Morris and others. The former says he has seen casts of the œsophagus expelled in these cases.

We do not see, however, how the type described by Hallopeau and others can be isolated, or put into a separate class from that of epidermolysis bullosa, as the bullous lesions are of the same character, histologically and clinically, as in the simple form, though possibly occurring in individuals with a greater tendency to bullous formation and subsequent atrophic changes in the skin and nails.

In the tabulation of cases collected from literature, we find that dystrophic changes are more common in the hereditary cases than in the congenital ones, and we must admit, whether we add the term

"hereditary" to the title, or not, that the disease is more frequently congenital than hereditary. In the tabulation of 86 cases, collected from literature, 47 of them were congenital, while only 39 were hereditary. This, however, can only be of approximate value, but the figures go to show that at least fifty per cent. of them are congenital.

This tendency to bullous formation after trauma, whatever be its cause, can, no doubt, be acquired, as in the case cited by Fox.

We may here also add an instance which occurred under our observation, similar to that of Fox, in which bullæ were excited by trauma upon the hands for years, after the production of a severe bullous dermatitis from the use of a certain form of cement in plastering.

It seems curious that in several instances, epidermolysis has developed between the twenty-fourth and forty-fifth year, although a large majority of them have begun during the first year of life. The hereditary cases begin earlier in life, as a rule, than the congenital ones. In the discussion of this affection, we must admit, in short, that we have here to deal with the following facts, namely: that in certain individuals a tendency may be inherited, congenital or possibly acquired, in which traumata of the skin is succeeded by the formation of bullæ. In many of these individuals this is accompanied by the trinity: changes in the nails, cicatrices upon the skin, and the formation of epidermic cysts upon certain locations. All of these changes are most frequently located upon exposed portions. These facts are obvious to all of those acquainted with dermatological literature and the clinical types of diseases of the skin. Therefore, an affection classified as epidermolysis bullosa must answer to the following test: the formation of a bulla or bullæ after trauma. This trauma may be, however, very slight, and be overlooked by patient and physician, as is possibly the fact in the cases reported by Hallopeau and others, in which bullæ seemed to appear idiopathically.

One of us had the good fortune to have under his care, at the same time, two children, one with epidermolysis bullosa (Case 1), and the other with pemphigus vulgaris, the disease possibly nearest in type to epidermolysis bullosa. Repeated experiments failed to produce bullæ in the latter. In this case the epidermis could not be removed from the cutis by pinching and severe traction, as described in Cases 1 and 2. This experiment we might suggest as a differential point in diagnosis, provided the experiment is confirmed by future observation.

The histological findings in our cases are surprising to us, as they differ markedly from those of other observers. The

epidermis in our cases show changes more similar to those described by Schmidt, but differ entirely from those described by Elliot and Colombini. The condition of the cutis, in our cases, correspond to that described by most observers, *with the exception of the elastic tissue elements*. All observers, whose writings we have examined, except Stanislawski, report the elastic tissue normal, while we find it *absent*, or only *sparsely* distributed in the papillary and sub-papillary portions of the cutis. Unfortunately we could not procure the original article of Stanislawski, and had to be satisfied with a short abstract of it in the JOURNAL OF CUTANEOUS DISEASES. According to this abstract Stanislawski describes: "A chronic periarteritis and periphlebitis, with changes in the elastic tissue, the fibers of which were thin and in some places had disappeared entirely." This seems to correspond with the findings in our cases, although the location of the absence of elastic fibers is not mentioned by Stanislawski; he was apparently not working with the normal skin of the patient. In our sections only a few scant and stunted ones could be demonstrated in the localities mentioned, after the greatest care in staining. That this absence of elastic tissue was not due to the constant moisture in the skin of the patient, was proved by the absence of degenerative elastic fibers and elacin. The œdema, if caused by the injury to the tissues in the excision of the piece, was too acute to cause such a complete disappearance of these fibers, and if such could be the case, we would certainly find degenerative chemical affinities; furthermore, elastic fibers are very resistant to œdema.

It seems to us that this absence of elastic tissue in the upper portion of the derma could explain the histologic picture in the normal skin of these patients, and the clinical phenomena characteristic of this affection.

It is thought that elastic tissue acts as a support to the cutis, giving it tenacity and tone, and in this way having a controlling action over its lymphatic and capillary circulation, besides acting in a similar capacity in its situation in the walls of the larger vessels. If the elastic tissue be absent in the upper portion of the cutis, and deficient in the deeper portions, from its known function, we would expect to find a cutis bathed with moisture from the loss of tonicity of the capillaries, and a partial stasis also in this region from the deficiency of this tissue in the deeper portions of the cutis. This œdema would be expected to be slight, as there are sufficient elastic fibers to prevent congestion, the lymphatic spaces and vessels being compensatingly larger. The tissues being thus constantly bathed with serum would undergo such histologic changes as we find in the

normal skin of our case. The chronically sodden and weakened epidermis could be easily detached from the underlying tissue on pinching and traction, as the elastic fibrils, which normally mount from the epidermis to the cutis, are absent. When the trauma is received, the consequent reaction, not having the usual control exerted over it by the elastic tissue, would allow an excessive flow of serum into the tissues, which would seek the place of least resistance, and dissect, or lift up the chronically sodden epidermis into a bulla. The elements or layers, composing the roof and walls of these bullæ, depend upon the tissue found most weakened at the time of injury; thus, the roof may be composed of the whole or part of the epidermic layers. The sweat ducts are always resistant and often determine the limitation of the spread of the fluid; these are often torn asunder and leave a nucleus for epidermic cysts during repair. Tissue rich in serum is active and heals rapidly. A scar may be produced by secondary infection; by complete destruction of the epidermis over a large area, when no islands of epidermic cells are left upon the floor of the bulla for regeneration, and by the poor effort of the elastic tissue to regenerate, as in syphilis and tuberculosis, where it is destroyed.

There are several cases cited in literature, where the affection disappeared later in life (as in our citation) at the time, when, according to Ravogli and others, there is an increase in the elastic fibers.

We do not wish to state without further observation that this affection is caused by the hereditary, congenital or acquired absence of elastic tissue in the papillary and subpapillary portions of the derma, but we feel that this finding can explain many of the features of this obscure affection, and should be of sufficient importance and interest to stimulate further research in this direction.

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Fig. 1.



Fig. 2.



Fig. 3.

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DESCRIPTION OF PLATES.

- FIG. 1. A recent bulla on the nose from slight trauma, clear and transparent. (Case 1).
 FIG. 2. The sanguinous bulla on the palm resulted from a violent fall on the pavement. The translucent, long bulla on the forearm was produced some hours later, for photographic purposes, by vigorous rubbing with a towel and was previously outlined by a pencil mark. (Case 1).
 FIG. 3. Sero-sanguinous bulla on the leg resulting from a kick by another boy in the ward. (Case 1).

THE PRODROMAL ERYTHEMA OF VARICELLA

By HENRY G. ANTHONY, M.D.

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THAT prodromal erythema, assuming various types, may be observed in variola was first pointed out by Hebra and is now an established part of the clinical picture of smallpox.

The appearance of prodromal erythema is no indication as to the severity of the disease in a given case; it has been observed in mild as frequently as in severe epidemics.

In varicella, it is not recognized that prodromal erythema may appear. Hensch states that he saw an accidental erythema in one case of chicken-pox just before the eruption appeared, and in another case, there was a slight redness of the skin of the back. He also saw sore throat and injection of the conjunctivæ, which he interpreted as accidental.

Holt describes varicella and scarlet fever occurring in an individual at one time. During one epidemic, he saw at the New York Infant Asylum at least a dozen children who had both diseases simultaneously.

I have observed two cases of erythema in chicken-pox, which I believe were cases of prodromal erythema in every way analogous to the prodromal erythema of variola, and it is my intention to present the evidence favoring this view.

The first case, observed several years ago, was a boy of two years, previously in perfect health. One morning he began to complain of feeling sick and wanted to go to bed; on undressing him, the mother noticed an erythematous eruption on the abdomen and chest. I saw him six hours later. He had taken no medicine previous to the sudden appearance of the eruption; the temperature was 104; there were no enlarged cervical glands; the tongue was not coated and did not present the strawberry appearance; no inflammation, enlarged tonsils, or white plaques could be found in the throat; the bowels had been previously regular and there were no signs of indigestion; the pulse was somewhat rapid. The conjunctivæ were watery and there was present a universal erythema, bright red in color, very marked but not punctiform as in scarlet fever. I made no diagnosis.

To my surprise, the following morning I found the temperature had dropped to normal, the erythema had disappeared and both the

patient and his twin brother were broken out with well marked varicella. No desquamation followed the erythema.

The second case was observed November 29, 1905, in my service at the Children's Memorial Hospital. Scarlet fever had just been discovered in two children, so that when the third broke out with an erythematous rash, it was supposed that this too was scarlet fever, but as we always observe peculiar and puzzling eruptions of the skin during epidemics of the acute exanthemata, the superintendent asked me to see the case, not being fully satisfied that it was a case of scarlet fever.

The patient was a girl, two years old, who had been in the hospital ten days; she was poorly nourished, backward in mental and physical development, and she had rickets. She had been given no medicine whatsoever while in the hospital; plain nourishing food and proper hygiene was the only treatment she had had; no article of food except of the simplest kind had been given her.

The attending nurse noticed a redness of the skin during the morning hours; there were no prodromal symptoms. I saw the child at 5 p. m. The temperature was 104 degrees Fahr.; pulse somewhat rapid, but not as rapid as in scarlet fever; there was no soreness of the throat; no enlarged glands in the neck or groin. The patient had a dry measles-like cough; the eyes were very watery.

The eruption present was a pronounced bright red scarlatini-form erythema, which disappeared on pressure; the eruption involved the entire cutaneous surface, it was not punctate. On the anterior surface of the chest were three or four large vesicles, not surrounded by an areola of redness, and there was one on the chin.

There were also three superficial flat papules on the chest and one umbilicated lesion; similar lesions were not found on other parts of the body. The patient was transferred to Cook County Hospital, in the service of Dr. George H. Weaver, to whom I am indebted for the subsequent history of the case.

The following day, the erythema had disappeared and the child was well broken out with varicella. No desquamation followed.

To sum up the clinical findings: A child perfectly healthy, suddenly, without prodromal symptoms or any disorder of the throat or stomach, breaks out with an erythematous rash which is not scarlet fever-like, but which is something special because of the watery discharge from the eyes; the eruption is accompanied by a few chicken-pox lesions in one case, but not in the other, and as soon as the varicella eruption is fully developed, in twenty-four hours in one case and forty-eight hours in the other case, the temperature drops to normal.

Diagnosis.—That these were cases of varicella and not variola there can be no doubt, but what was the erythema? It might be some intercurrent erythema, scarlet fever, or prodromal erythema analogous to the prodromal erythema of variola.

Intercurrent erythema.—An erythema such as was observed in these cases might result from septic absorption from a wound, but there was no wound present in either case.

It might be caused by a streptococcus infection of the throat, the characteristics of which, as observed in my clinical material are: the eruption is not punctuate, the eyes are slightly congested, but not watery; the infection of the throat is always sufficiently developed to enable one to detect it by inspection; the eruption does not usually appear until the child has been sick several days.

The fauces and tonsils were normal in both our cases. The absorption might be from the gastro-intestinal tract, in which case, we would expect to find some evidence of disease of the stomach and bowels, and there was none in either case; furthermore, erythema produced by gastro-intestinal autointoxication is followed by severer desquamation than is scarlet fever. The scarlatinoids and erythema produced by drugs, were also considered.

Scarlet Fever.—As is shown by the histories of the cases, the eruption was an erythema characterized by the absence of puncta which are so characteristic of scarlet fever.

The severe catarrhal inflammation of the conjunctivæ present in both of these cases, is not part of the clinical picture of scarlet fever. I agree with Corlett that the conjunctivæ are congested, but do not present a severe degree of catarrhal inflammation in scarlet fever. The pulse, throat, tongue and prodromal symptoms were lacking in these cases.

Prodromal Erythema.—The catarrhal inflammation of the conjunctivæ with a profuse watery discharge and the absence of puncta, stamps this erythema as something special.

The reason for believing that it is a prodromal rash, is the same as for believing that the scarlatiniform rash of variola is prodromal, and not accidental, that is its relation to the disease. The illness begins with the appearance of a special kind of erythema, and as soon as the varicella is fully developed, the temperature falls to normal.

With the clinical characteristics we have indicated in mind, the fact that one case developed in close proximity to two cases of scarlet fever, did not materially increase the difficulty of diagnosis.

I am quite convinced that these are not isolated observations.

SOCIETY TRANSACTIONS
NEW YORK DERMATOLOGICAL SOCIETY

337th Regular Meeting, November 28, 1905

President, Dr. G. H. Fox.

Tuberculosis, Cutaneous, A Case of. Presented by Dr. MORROW.

This case came under observation in September. The eruption was distributed over the entire abdomen. The patient was operated on about twelve years ago by Dr. Bull, who removed the left testicle for tuberculosis. After this he was seen by Dr. Morrow at the out-patient department of the New York Hospital, as the disease had extended to the root of the penis. Since then it has gradually progressed. When he came to me two months ago he had half a dozen patches larger than the thumb nail over the penis, and the outer margins extended from the left inguinal region over the abdomen to the umbilicus and back to the right inguinal region, forming a half circle. This advancing margin about one and a half inches in width was raised, scaly and covered with the characteristic tubercular lesions and the scar tissue over the lower abdomen, which had partially healed was also the seat of recurrent tubercles. He was curetted under ether, and the Paquelin cautery applied. The whole surface entirely healed, although there has been a redevelopment at one or two points. The chief point of interest in this case is the fact that it is unusual for a tuberculosis beginning in a visceral organ to extend to the skin. The preferential infection is toward the internal organs. In this case there is no tendency manifest to invasion of the kidneys or bladder. The severed cord is soft with no sign of implication.

Dr. SHERWELL would like to ask Dr. Morrow if he has placed the patient on any internal treatment. It is his practice to give arsenic, and from its use he has seen good results. In epithelioma, after curetting, he invariably uses it, as he considers it to be an inhibitive to recurrence.

Dr. ALLEN thought the results of treatment were excellent. He said that he had treated with the X-ray a patient who had never had gonorrhœa or syphilis for a supposed tuberculosis of the epididymis. The tumor had disappeared, though the cord is still thick and tender, and it looks as if the X-ray had been efficacious.

Dr. MEWBORN thought that in view of the recent interesting article in the British Journal of Dermatology, by McCall Anderson, describing a number of lupus cases in which tuberculin had been used, tuberculin might be a good thing to try here. McCall Anderson gave minute directions as to regulating the dose. His pictures of cases before and after treatment showed results equal to those obtained by Finsen or the X-ray. Dr. Mewborn thought that a very interesting point in explaining the action of the remedy in these cases of lupus was cleared up by the work of Wright, of England, in regard to increasing the opsonic index.

Wright's first results were obtained in chronic sycosis, onychitis, acne and other infections, in which the patients were treated by injections of gradually increasing doses of the dead staphylococci. In some cases the culture was from the particular staphylococci causing the disease in the case treated. Definite quantities of the pure culture was mixed with normal salt solution and heated to 65 or 70 C.

This was done to destroy the toxic qualities of the micro-organism while stimulating the patient to elaborate opsonins in the blood serum which powerfully stimulated the phagocytic action of the leucocytes. Wright was working upon this same theory in treating tuberculosis.

Dr. MORROW said in regard to the internal treatment he has used arsenic in a number of cases without favorable result. Tuberculin he had experimented with a great many years ago, with unfavorable results. He had not tried the newer tuberculin. He has used thyroïdin chiefly on account of Crocker's claim, that it has an almost specific action in this class of cases. It was given the patient while in the hospital, in five-grain doses t. i. d., and he continued its use until last week. His general health had become much impaired, there was weakness, tremulousness and other neurasthenic symptoms, which showed the result of a profound toxic impression on the nervous system. Dr. Morrow had seen such a result in two or three cases of psoriasis, where its long-continued use had caused toxic symptoms. The thyroid extract was stopped a week ago and a simple tonic given, with the result that the patient is now better. Parke, Davis & Co.'s preparation was used for three or four weeks and he did not show any untoward symptoms; then the preparation of Burroughs, of London, was given, and these symptoms of nerve poisoning resulted. It is probable, however, that the toxic symptoms were not due so much to the particular preparation used, as to its prolonged use.

Raynaud's Disease, A Case of. Presented by Dr. ALLEN.

The patient, Mary J., aged twenty-nine, gives a history of having the trouble begin three years ago while working in ice cream. She suffers from nervousness and hysteria, and complains of pain on the left side. There is an œdema at times of the face on the side upon which she lies. The case may be regarded as one of Raynaud's disease with keratosis of the ends of the fingers instead of actual gangrene. The patient becomes cyanotic in her hands, feet, nose, ears and cheeks, and the fingers often present the characteristic appearance of "dead fingers."

Dr. PIFFARD does not know why in these cases the nutrition of the bones should not also be affected, and if they are, an X-ray examination would certainly prove interesting, and he wished to suggest that Dr. Allen make a radiograph of the bones in this case.

Dr. KLOTZ said that the condition of the fingers and the presence of symptoms on the nose and elsewhere reminded him of a case of sclerodactylie which he once presented to the society, and made him think of the possibility of scleroderma in this case.

Dr. ALLEN thought that from the condition of the soft parts of the fingers there might be a change in the bone structure, and would take an X-ray picture to determine this point.

Hairy Naevus, A Case of. Presented by Dr. ALLEN.

Dr. Allen presented a small boy with a large hairy mole covering the upper portion of the cheek, temporal region and forehead upon one side. The hair was abundant and over an inch in length. Some hairs had fallen after X-ray exposure.

Dr. DADE wished to know if Dr. Allen expected to remove the pigment as well as the hairs by the X-ray.

Dr. ALLEN said that the extensive nævus was congenital, and he was of the impression that the patient had never been treated. He anticipates removal of the hairs and possibly the total destruction of the tumor if an X-ray dermatitis can be developed.

He feels certain that the destruction of the hair will be complete, and cited a case in which the nævus diminished in size under the X-ray treatment. It was a vascular nævus in the case cited.

Dr. SHERWELL said that he had removed one from a child about one-third the size. He had dissected the edges and then put in about twenty-five stitches in the true skin. He then inserted a couple of big silver wires as retainers through the cheeks, and now the boy has a linear scar barely visible.

Dr. DADE said that he had removed hairy pigmented nævi at the Vanderbilt Clinic with much stiffer hairs, with liquid air, and cited the instance of two girls; one had one the size of about a dollar, and the other was not so large. They were both removed, both pigment and hairs, with a resulting smooth scar.

Dr. ALLEN wished to know if liquid air was still being used at the Vanderbilt Clinic, and also wanted to know where it could be procured.

Dr. JACKSON said it could be obtained at Daggett & Ramsdell's drug store.

Dr. SHERWELL said that he had had cases of nævus involving both the anterior and posterior fontanelles, and which he removed with ignipuncture, and that the result was perfect. They were erectile nævi. He would suggest that this case might be benefited by ignipuncture.

Dr. Fox corroborated what Dr. Dade said about the complete and speedy cure of nævus with liquid air. He said that in these cases at the Vanderbilt Clinic the scar was so smooth that there was absolutely no possibility for the hair to grow. He mentioned a case of nævus that extended on the cheek, lower eyelid and part of the nose, and by the use of the needle removed absolutely the entire growth of hair and the verrucous condition of the skin, and at the present time the scar is hardly apparent. It required from three to four years to get this result. He thought it the most brilliant therapeutic result he had ever achieved. The case is mentioned in his atlas.

He called attention to the fact that nitric acid carefully applied will remove large hairy moles from the face and leave a very slight scar.

Dr. ALLEN said he had succeeded in removing hairy moles with electrolysis; a perfect scar resulting. The work is a little tedious to do it nicely.

Dr. MORROW wished to ask Dr. Fox if he had ever noticed any keloidal condition following the application of nitric acid? Two cases, one a young lady, the other a child, had come under his observation in which disfiguring keloidal scars had resulted from the use of nitric acid to remove moles. In one case all the moles had not been removed; they were frozen with chloride of ethyl, curetted and the base cauterized. They healed up with smooth, scarcely perceptible scars. In this case there was evidently no inherent tendency in the patient's skin to keloidal formation. The hypertrophied scars were due to the agent employed, or perhaps rather to the method of its employment.

Dr. DADE said that the action of nitric acid could not be well controlled, and if the true skin were destroyed the resulting scar was most apt to be hypertrophied and disfiguring.

Dr. MORROW desired to know why would not the operation of curetting after freezing with chloride of ethyl, which solidifies the diseased tissues and permits of its ready enucleation, be better than the application of nitric acid, as the depth and extent of its destructive action cannot be so accurately limited.

Dr. Fox thought nitric acid good; it should not be applied with a glass rod, but on a toothpick, and with it make minute sloughs. He has successfully removed pigment without injuring the true skin at all.

Dr. LUSTGARTEN recommends coating a pointed wooden stick by dipping it in collodion. This protects the wood from the chemical action of the nitric acid, and makes a better application than glass.

Dr. KLOTZ said that the advantage of the toothpick was that it soaks up the moisture and there is no danger of a hanging drop falling off. He thought it very good to use in getting in between papilla in *condylomata acuminata*.

Angiosarcoma, A Case of. Presented by Dr. LUSTGARTEN.

A young lady who has been suffering from a slowly developing infiltration leading to a change in the formation of the nose for about two years. The patient gave no history. She was in the hospital for three weeks. Two years ago the infiltration began to show on the right side of the nose, which has since led to a considerable indurated mass filling out the nostril. During the last few months it has worked itself nearer the surface and began to show a teleangiectatic, claret colored appearance. Syphilis, leprosy, tuberculosis, rhinoscleroma and actinomycosis may be excluded, and the diagnosis of angiosarcoma is arrived at because of the teleangiectatic condition present. The condition is a very unusual one. At the present time the patient is taking 1-10 grain doses of arsenious acid increased to 1-3 grains every day in connection with the X-ray treatment. There has been a decided change for the better.

Dr. FORDYCE said that he had seen the case before Dr. Lustgarten had begun the treatment and could say that there is now a decided improvement, and that the infiltration is less hard.

Dr. LUSTGARTEN said in closing that some good results had been observed in sarcoma with the X-ray. He is still inclined to make a bad prognosis as far as the ultimate result is concerned.

Double Chancre of the Upper Lip, A Case of. Presented by Dr. ALLEN.

Three months ago this patient presented herself, with a double initial lesion of the upper lip; this has never wholly disappeared, but at one stage when the patient developed a papular and tubercular eruption of the face, chest and neck, the two lesions took on the same appearance as the others and hardened up again so that the condition of chancre redux was simulated. The sites of the initial lesions are to-day plainly seen and felt as symmetrical raised bluish red nodules, which have, however, almost undergone resolution. There is more staining of the tissues than actual infiltration.

Dr. MORROW said he would rather hesitate to apply the term of chancre redux for the reason that it does not seem to be a redevelopment, but rather a persistence of the initial lesion. The patient said it had at no time disappeared, but it had continued all the while without healing up. He would look upon the case as one of persistence of the initial lesion. It is not unusual for the chancre to persist for six months or longer. The case is interesting on account of the situation upon the upper lip, a comparatively rare location, and it being multiple rather than single.

Dr. KLOTZ mentioned the case of a patient who became infected with syphilis three years ago, having a chancre on each side of the corona glandis penis. In spite of energetic treatment, with between thirty and forty injections of the

salicylate of mercury, the induration disappeared but very slowly and a slight discoloration remained. Recently both localities became indurated again, presenting almost exactly the same appearance as in the primary stage, without any breaking down. Under mixed treatment, the patient not living in New York any longer, they have almost disappeared again.

Dr. SHERWELL was struck with the extreme rarity of chancre of the upper lip. He sees a great many of the lower lip and tongue, but very few of the upper lip. In this his experience corresponded to that of others of much greater, Sir James Paget, for example. Paget called attention to the rarity of epithelioma in this region.

Dr. MEWBORN wished to know if anyone had seen anything corroborating Hallopeau's observation regarding the severity of the secondary lesions being greater in the neighborhood of the infection? In the present case you would expect to find the lesions around the face to be more severe than elsewhere.

Dr. MORROW stated that clinical observations would refute Hallopeau's statement.

Dr. ALLEN answered that he had observed that very thing a number of times, and it was very marked in this particular case. At one stage it looked as though there were three chancres, the third lesion being a secondary lesion which had developed nearby.

Dr. MEWBORN said that he had a photograph of a case observed at the New York Hospital, in which there was a mixed infection; the papular syphilide appearing thickly strewn in the inguinal region over the enlarged glands while the rest of the body was almost entirely free from eruption.

Dr. MORROW said that in a thousand consecutive cases of syphilis it would be found that the earliest and most characteristic eruption was situated in a region remote from the point of infection. The earliest manifestations are almost always upon the sides of the chest, frequently on the forehead, and if looked for carefully will be found upon the hairy scalp. This latter clinical point is one that is usually overlooked, but for years he has looked for early manifestations in the hairy scalp, and that is about as far away from the seat of chancre as one can get. In women mucous patches are most often seen near the seat of the initial lesion, but that is due to anatomical peculiarities. He is of the opinion that Hallopeau's statement is opposed to the observation of anyone who has had much to do with syphilis.

Dr. MEWBORN said that Hallopeau reports a number of cases. He cites other authorities to show that while not the rule, a sufficient number of cases have been reported to show that local proliferations of the syphilitic virus occur in the vicinity of the initial lesion. And that this extension is by way of lymphatics or interstices of the tissue, and not through the fact of systemic infection.

Dr. FOX thinks the exceptions are too numerous. In the worst cases, beyond the initial lesion on the penis, there is nothing else, and he fails to remember the well-marked corona on the lip. In some cases, through local irritation, numerous lesions have developed around the initial lesion, but as a rule it is the opposite.

Dr. DADE mentioned a case of chancre of the lip only recently seen, in which the face was free, but the body was completely covered with a roseola.

Dr. MORROW called attention to a case illustrated in his *System of Syphilology* of a chancre on the upper lip with a generalized eruption. The patient had never had any eruption appear upon the face, but he had a very severe eruption upon a distant region.

Dr. FOX said that in a series of lantern slides the first picture he shows is a woman with a large chancre on the lip, with a body eruption; the face being entirely free.

Dr. ALLEN said that he was aware that the lesion in this case had never disappeared from the lip, but that it had changed so in character and had taken on

the same features as the secondary eruption, that it could be regarded as a transformation into a secondary lesion located in the same spot. He also agrees with Dr. Morrow, that it is not a case of chancre redux, strictly speaking, but he thinks the same condition pertains.

X-ray Burn.

Dr. Morrow spoke of a case he had intended to present, but the patient was unable to come on account of the inclement weather. The patient for several years had been subject to an occasional manifestation of eczema, but for the last two years the eczema had been limited to two patches on the anterior middle surface of the legs, which had not yielded to treatment. The patient had during a period of three or four months been subject to X-ray treatment by a physician in Syracuse, about thirty exposures having been given altogether. Coincident with this treatment there was a very marked aggravation of the eczema in the region of the ankles, dorsum of the feet, and the entire leg, and extending over the body, affecting the patient's health. The chief point of interest is that as a result of the treatment two burns appeared, one on each leg; one appeared some time after the discontinuance of his treatment, the other followed a month or six weeks after the first burn. While there was much pain, there was at first no breaking down of the tissues. In addition to this the patient had a very profound neuritis. He complained of the pain being deep-seated rather than upon the surface. This deep-seated neuritis seemed to be the most distinctive feature. The surface of the right leg had the appearance of being worm-eaten and possibly half a dozen small ulcerated patches not very deep, were present. After the burn almost healed on the right leg, the ulceration began on the left leg.

The opinion of the members was asked as to the best treatment for X-ray burns. The patient was in constant pain night and day, and the dressing required changing at least half a dozen times a night, and the only application that relieved the patient at all was the calamine lotion with carbolized oil.

This proved the most effective after perhaps only a dozen others had been tried; the others aggravating the pain. X-ray burns are of only occasional occurrence, but their treatment seems to be wholly unsatisfactory.

Dr. PIFFARD has found the most benefit in X-ray burns from antiphlogistin, chloride of zinc, high frequency current, and ultra-violet rays. He knows of nothing that can be depended on in every case..

Dr. FORDYCE said that calamine lotion or aluminum acetate relieves first and second degree burns.

Dr. MORROW said there was a very foul smelling odor to the ulcer, and he has found the best application to be a solution of argyrol. He used it partly because of its antiseptic character, and because its application produces no pain. It was first used in a ten per cent. solution, later twenty-five per cent. Besides destroying the unpleasant odor, it had a good effect on the diseased surface.

Dr. Piffard presented an X-ray photograph of the hand of a case which he had seen with Dr. Mewborn; there was intense itching, and the patient had attacks of asthma. It seemed like lichen. The eruption disappeared but the asthma persists. There was present a marked eosinophilia. Dr. Piffard does not remember having seen the case at the meeting but saw it in his office and it looked like eczema. He was struck with one feature of the case which was a deep hyperlineation of the palms and he took an X-ray picture of the hand, which was shown. The chief point of interest is the atrophy of the tip end of the terminal phalanges. That condition of the phalanges he has never seen before.

A. D. MEWBORN, *Secretary*.

CHICAGO DERMATOLOGICAL SOCIETY

Since the last report of the work of this Society, the cases of greatest interest presented for inspection and discussion were as follows:

Lupus Erythematosus of an Unusual Type. Presented by Dr. MONTGOMERY.

A young woman, thirty-five years of age, in excellent general health, and giving a good family history. At the time of presentation, the patient had been under observation five months. On either side of the nose and an inch below the inner canthus of each eye, is an irregular slightly elevated mass which at first view would easily pass for a group of syphilitic tubercles. The center of one of the areas shows a pea-sized, thin, white, atrophic, somewhat depressed scar. On the left cheek are two small lesions typical of lupus erythematosus. The patient states that the lesion on the right side of the nose has appeared and disappeared at times for thirteen years, but has persisted the last eighteen months. The other lesions are of but a few months duration. During the five months she has been under observation there have appeared from time to time on the neck and forehead and once on the forearm, subcutaneous pea-sized nodules, which were very sensitive, but disappeared during the course of a few weeks. On first appearance, the skin over them seemed normal, but in a few days assumed a dull red color. Three of these lesions on the neck have left characteristic areas of lupus erythematosus.

Lupus Erythematosus With Extensive Involvement of Glands of the Neck and Axillae. Presented by Dr. MONTGOMERY.

The patient is thirty-six years of age, in good general health; family history negative. Beginning just back of the ear and extending over the ramus of the right jaw, nearly to the chin, is a group of flat, round and irregular, discrete or coalescing slightly, elevated areas, varying in size from four to eight millimetres. Under pressure the color disappears almost completely. Most of the areas show in the center slight atrophy and alopecia. The glands of the neck nearly to the clavicle are exten-

sively involved, extending out in large, firm masses. There is also a large group in the axilla on the same side.

Hydroa Aestivale Complicated With Eczema Seborrhoeicum. Presented by Dr. MONTGOMERY.

A child, ten years of age, has been under observation for six years, the disease having appeared every summer since she was a year and a half old. The present attack was unusually severe, and after a few days the vesicles became covered with yellowish crusts. On inspection each vesicular lesion is seen to be capped by a seborrhoeic crust. The skin between the vesicles is slightly involved, while the scalp is the seat of a marked seborrhoeic eczema.

Lichen Planus, A Case of Severe Generalized. Presented by Dr. MONTGOMERY.

The patient, a man fifty years of age, formerly in good general health, is now almost cachectic from loss of sleep and rest, having lost twenty pounds in weight. For seventeen years he has never been entirely free from the disease, except for a period of two months while he was ill with pneumonia. During most of the time the disease has been limited to two or three regions, but for several months has been nearly universal. On inspection, a few small islands of normal skin can be detected over the body. The face and hands are but slightly involved. The palms and soles are the seat of punctate hyperkeratosis, due to the arsenic he has been taking. There is marked general adenopathy.

The patient made a good recovery in three months of general hygienic treatment, together with the application of X-rays, tepid baths and soothing ointments.

Seborrhoeic Eczema, Case of Severe Generalized, of Sixteen Years' Duration. Presented by Dr. MONTGOMERY.

In a man twenty-eight years old, poorly nourished and neurotic. He had never received intelligent and persistent treatment. In all, three-fourths of the body surface is involved. The newer areas presented a typical seborrhoeic eczema; the older patches being densely infiltrated, of a dull red color and exfoliating freely.

The use of sulphur ointment produced prompt improvement in the general condition; the infiltrated areas yielding to the added influence of the X-rays.

Fungating Dermatitis. Presented by Dr. W. A. PUSEY.

Man, aged forty-five, with areas of fungating dermatitis involving the face, the neck, the lower abdomen and genito-crural region, and to a less extent other parts of the body. Over certain of the areas there was a weeping dermatitis without hypertrophy; over the large areas there were remarkable papillomatous weeping surfaces elevated from 1-16 to 1-2 an inch and resembling closely enormous areas of condylomata lata. There were no lesions in the mouth. There were no areas of dry circum-

scribed itching dermatitis. The history was that of an acute weeping dermatitis upon which these papillomatous growths had gradually developed. Examination of the tissues and secretions and pus had shown abundance of pus organisms but no mycelial fungi. The exhibitor thought that mycosis fungoides and pemphigus vegetans could be excluded, and that the case was one of fungating dermatitis from infection with pus organisms similar to cases which had been reported by Wende, Hartzell and Hallopeau.

Subsequent Report.—Under boric acid wet dressings the fungating masses disappeared in the course of two months, and the areas healed.

Epithelioma. Presented by Dr. W. A. PUSEY.

This patient was a woman over sixty years of age, presenting an epithelioma four to five inches in diameter between the shoulders. The lesions had developed from a patch of psoriasis. Typical psoriasis lesions were present on the body and in the skin around the ulcer.

Blastomycosis. Presented by Dr. W. A. PUSEY.

Which had involved the entire face and most of the head, with marked scarring which was somewhat hypertrophic. The wrists were also involved.

Case for Diagnosis. Presented by Dr. W. A. PUSEY.

Man, aged thirty-five, with two ulcers symmetrically situated on the center of either cheek. Ulcers oval, rather sluggish, and the skin around them purplish. The patient was a tramp who had frozen his face a couple of weeks before and these ulcers were the rather peculiar looking result. They healed rapidly and were well within a week, leaving deep scars. In addition to these lesions the patient exhibited marked cyanosis of the nose and extremities when exposed to a low temperature. The physical examination regarding the circulatory apparatus was negative, nor did the urine show evidences of kidney complications.

Pityriasis Rubra Pilaris. Presented by Dr. W. A. PUSEY.

A case of pityriasis rubra pilaris in a man twenty-five years old. The eruption was confluent over the trunk, discrete on the extremities.

Urticaria Pigmentosa or Urticaria Chronica Cum Pigmentatione. Presented by Dr. W. A. PUSEY.

Man, aged twenty-two, with an eruption of pigmented pea-sized papules most abundant over the chest, but generalized over the entire trunk, arms and thighs. No lesions on hands, face or feet. Upon friction a wheal could be developed in any papule. There was slight itching and history of occasional attacks of urticaria. The disease had not existed more than five years, so that its development was after sixteen or seventeen years of age.

Case for Diagnosis. Presented by Dr. W. A. PUSEY.

This patient was an under-sized boy, aged twenty-two, with many evidences of poor nutrition; peg-shaped teeth, asthma, spade-shaped finger tips, and dilatation of the heart. Over the legs, especially below the knees there were large areas of eczema in which the skin was much infiltrated and showed the secondary evidences of scratching. There was a clear history of the disease having existed since infancy. His inguinal glands were large and painless but no prurigo papules were to be seen. The interesting point was the reason for the existence of this eczema practically continuously since infancy. Doctor Zeisler suggested that the case fitted into the type described by Unna as *eczema chronicum nervosum*; the reporter agreed that it was an eczema and that it did not present the clinical picture of prurigo, but he thought that in its pathogenesis it was analogous to or closely related to prurigo.

Lupus Erythematosus. Presented by Dr. W. A. QUINN.

This patient was a woman, thirty-five years of age, exhibiting typical lesions on the cheeks and ears. Those upon the face were of about the size of a silver dollar and deeply infiltrated. The disease had begun upon the ears. Of the various forms of treatment tried, exposure of the diseased portions of the skin to the X-ray has been most successful and at present all of the redness has disappeared except in one lesion behind the ear.

Lupus Vulgaris. Presented by Dr. H. G. ANTHONY.

The patient was a married woman, thirty years of age. Her sister died of tuberculosis. Her previous history was negative. Three years ago she was treated for middle ear disease and chronic atrophic rhinitis. Two years ago she again consulted her physician because of obstructed nasal breathing. Examination showed a hazel-nut sized tumor of the septum; microscopical examination established the tuberculous nature of this tumor. Under radium and X-ray treatment the tumor disappeared leaving a perforation.

At the present time there is no sign of disease in the nasal cavity, but the entire surface of the skin of the nose is thickly studded with nodules which are pin-head size and larger, deeply situated in the skin, slightly elevated above the surface; they are soft, yellowish, waxy and not scaly. There are no scars present.

Eczema Seborrhoicum. Presented by Dr. H. G. ANTHONY.

The patient was a young man, twenty years old, and was presented as a typical case of the disease. The entire scalp was covered with scales under which there was an inflamed and somewhat infiltrated surface. Greasy patches, red, infiltrated, well-defined, were scattered all over the surface of the chest and back.

Addison's Disease. Presented by Dr. H. G. ANTHONY.

The patient was a married woman, a brunette, twenty-five years old, of Irish-American parentage. There is no family history of tuberculosis and the patient has always enjoyed good health prior to her present illness. Fourteen months ago she sustained a sunburn of the face and hands, which was followed by exfoliation of the epidermis and pigmentation developed. The pigmentation has continually increased and extended to other parts.

Status Præsens.—The patient could easily be mistaken for a negress, were it not for the fact that the lips and nose are of the Caucasian type. The skin of the face and hands is of a light black color, over the face here and there are to be seen pin-head sized jet black points. Extending from the hands up the arms and from the face down on to the neck, chest and back, the pigmentation gradually decreases without there being any distinct outline anywhere. The lower extremities alone are normal. The nipple areola, axilla and genital region are blacker than any other part of the body. The mucous membrane of the lips and the gums show pea-sized areas of black pigmentation.

The blood is normal. The patient has lost fifteen pounds in weight during the past three months. She complains of shortness of breath on exertion; is easily tired and has attacks of vomiting and diarrhœa from time to time. Abdominal palpation furnished no additional information.

Lepra (mixed form). Presented by Drs. HYDE and MONTGOMERY.

This patient, forty-five years of age, a widow with three healthy children, states that the disease had begun ten years previously with numbness in the little fingers of the right side, followed by a macular exanthem, accompanied by febrile accesses. Six years ago nodules appeared in the cheeks. The patient had a visage characteristically deformed with nodules dispersed over the brows, ears, lips and cheeks, some breaking down. The Schneiderian membrane was extensively involved. Broad areas of anæsthesia were present over the trunk and limbs; the back was the seat of numerous defined maculations, with a brown periphery and yellowish-white central area. The ulnar and great auricular nerves were thickened; the digits of both feet and hands were clubbed, deprived of their nails, and the seat of ulcerating tubercles. The taste and smell were impaired.

Attention was directed to the fact that, in regard to the possibilities of infection, this patient was a greater menace than others seen by the members during the last six months—during which period nearly half a dozen cases of the disease had been under observation. The patient had occupied a room in a well-known hotel, and had travelled to Chicago from a distant state in a Pullman coach.

Chancre of Penis Extirpated on the Belief that it was Cancerous. Presented by Dr. QUINN.

The patient, fifty-eight years of age, married, never wittingly exposed to the sources of venereal diseases, who had entered a hospital with a lesion of the penis accompanied by double inguinal adenopathy. The lesion had existed for one month. On the supposition that the disease was cancerous, a surgeon had amputated the penis. The patient was shown with a generalized maculo-papular syphiloderm, the inguinal glands having been entirely removed at the time of the operation. There were no lesions in that region save irritable lines where the glands had been excised.

Epithelioma of Cheek in a Lad. Presented by Dr. HYDE.

The boy, eleven years of age, had suffered for four years from a circumscribed split-pea sized lesion of the right cheek, had been treated in a homeopathic institution with a score of X-ray exposures, without appreciable effect.

Attention was called to the obvious fact that the lesion, considering the age of the patient, might be in fact a lupus (the diagnosis made by his former physician), but no nodules resembling lupus vulgaris were visible. Doctor Montgomery agreed with Doctor Hyde in believing the lesion to be a small epithelioma. Doctor Pusey and others preferred to look upon it as a simple lupus. The lesion was to be operated on by excision.

Carcinoma Linguae, Closely Simulating Gummata. Presented by Dr. ORMSBY.

The patient, a woman forty-seven years of age, had had the disease for eight months. Several nodules very much resembling gummata were present, occupying two-thirds of the tongue. There was but slight adenopathy. The first lesion appeared on the side of the tongue in an area irritated by a broken tooth.

Acne Vulgaris and Comedones. Presented by Dr. ORMSBY.

The point of interest in this case was its unusual distribution. The patient was a man aged thirty-two, who had had the disease for one year. Typical lesions were present abundantly on the abdomen, thighs and forearms, a few extending on to the dorsum of the hands. The face, shoulders and back were comparatively free. His occupation, a hemp worker, explains the localization, as the above mentioned areas are daily saturated with oil.

Lupus Vulgaris. Presented by Dr. ORMSBY.

A boy, aged fifteen years, had suffered from the disease for seven years. At nine years of age a lesion occurred just below the knee-joint

on the flexor surface as a "white lump" beneath the skin, which later became a "sore." At present near the knee there are two areas of delicate cicatricial tissue about the size of a silver dollar and very superficial. The only areas showing an activity on the face, where one cheek is nearly covered with a scar similar to those upon the leg, in which several brownish nodules, superficial ulcers and crusts occur, and throughout which marked telangiectasis is to be seen.

Lupus Vulgaris. Presented by Dr. ORMSBY.

This patient, a woman aged thirty-four years, had had the disease twenty-three years. At nine years of age the face was burned with a lighted cigar, which left a lesion that never entirely healed. At nineteen years of age the same area received an injury from trauma. At present an area about two-and-a-half inches in diameter on one cheek shows a superficial scar in which marked telangiectasis is present. There are also present a few superficial crust-covered ulcers, and brownish nodules.

Erythema Multiforme. Presented by Dr. ORMSBY.

The patient, a physician, aged thirty-eight, has had four attacks of this disorder, each beginning in February and lasting three months. The first occurred in New York City, two at his home in Washington (State), the last in Chicago. The lesions occur as vesicles fairly deep, situated on an erythematous base, and are distributed on the dorsum of the hands and feet, legs, forearms, and less so in other regions, palms, digits, and a few on the trunk. No subjective sensations are present.

Alopecie Cicatricielle Innominée. Presented by Dr. ORMSBY.

The patient, a woman, aged twenty-seven years, had suffered from the disease for eight months. There was no history of syphilis nor of tuberculosis. Several areas varying in size from pin-head to that of a dime scattered irregularly over the scalp were present. They were atrophic, slightly depressed, devoid of hair and showed no discoloration. In some places the appearance of lupus erythematosus was suggested.

Primary Lichen Planus of the Tongue. Presented by Dr. H. G. ANTHONY.

The patient was a school girl, fifteen years old. Her previous history threw no light on the case. Last April she noticed a roughness on the left border of the tongue, but did not appear for treatment until September. A whitish streak along the border of the tongue was present, suggesting the appearance one would expect following the application of silver nitrate.

Five weeks later while under observation, an eruption of flat, soft papules suddenly developed on the mucous membrane of the right cheek; they presented no umbilication, but were arranged in rows. There is not

now, nor has there ever been, any pigmentation or other eruption of the skin, excepting keratosis pilaris of the extensor surfaces of the extremities. Fordyce's disease, porokeratosis, wandering rash of the tongue, leukoplakia, and syphilis, may be excluded.

Cases in which lichen planus has appeared upon the tongue long before the disease developed on the integument, have been reported, and in all probability this case is one of like disorder.

Urticaria in an Infant. Presented by Dr. H. G. ANTHONY.

The case was presented because it had been seen by several physicians and called lichen pruriginosus, or prurigo. The child was one year old. The disease began when it was three months old with an eruption of urticarial wheals. At the present, there is nothing to be seen except scratch marks, and no urticaria facticia. There are no prurigo nodules present.

Erythema Induratum. Presented by Dr. CAMPBELL.

The patient was a girl sixteen years old. There were no signs of tuberculosis in the patient, but she has a family tuberculous history; syphilis could be excluded in the case. Six weeks ago, accompanied by fever, nodules suddenly developed in the subcutaneous tissue of the posterior surface of the legs. It is said that they presented the appearance of erythema nodosum at that time.

On examination three nodules in the subcutaneous tissue of one leg, and five in the subcutaneous tissue of the other leg were discovered. These nodules are about the size of a cherry and painless. The patient has no joint pains. The skin over the nodules is dark brown and somewhat depressed. There was a pea-sized opening in the center of one of these nodules from which serum was oozing. Strands of connective tissue running through the lesions, could not be felt.

Acute Eczema. Presented by Dr. SCHALEK.

The patient, a draughtsman, forty years of age, never had any skin disease until the present time. General health good, urine normal. The present eruption is an acute eczema of the back of both hands and is of interest on account of several deviations from the usual type. The patches are few in number, round, of the size of a silver dollar, rather well-defined. The vesicles are much larger than are usually found, have thick walls and show little tendency to coalesce or to rupture. During the last few days an acute erythematous eczema appeared on the face.

Vitiligo, A Rare Form of. Presented by Dr. HYDE.

The patient was an Italian, aged twenty-five years. The disease had existed for four years. The patient has been in America for four months. He sought relief for a specific infection and in the examination

of his cutaneous surface these unusual areas were noted. There were present on his body twelve circular vitiliginous areas varying in size from a split pea to that of a silver half-dollar, in the center of each of which was a reddish papule. The papule often surrounded a hair follicle, and bore a definite relation in size to the area of vitiligo in which it was situated.

Pityriasis Rubra Pilaris. Presented by Dr. HYDE.

A woman, aged twenty-four, had suffered with the disease for two-and-a-half years. Past personal and family history negative. The disease began as a red, scaling area on the face, which soon spread.

Status Præsens.—Face erythematous and scaling; marked scaling in scalp. The fingers, hands, forearms, thighs and legs to ankles are the seat of small, acuminate, almost colorless follicular papules. Slight itching is present.

Lichen Ruber Moniliformis (Kaposi). Presented by Dr. HYDE.

A man, aged thirty-four, had had the disease for two years. Family history negative. Past personal history: He was subject to asthma until the appearance of this eruption. *Status Præsens:* The lesions are located on the neck, about the axillæ, groins, on the dorsum of the hands, on both surfaces of forearms and elbows. Some few are to be seen on the trunk. The elementary lesions are firm, reddish, purplish or translucent papules. They are arranged in bands and streaks, especially about the axillæ and shoulder. Erythema is present over the anterior surface of the trunk. No subjective sensations are complained of.

A Case for Diagnosis. Presented by Dr. MONTGOMERY.

A young woman, twenty-two years of age, medium weight, personal and family history negative. The present disorder began two years ago, and has slowly progressed ever since. The lesions have never disappeared, but the accompanying itching has been more marked at times than at others. For a year she has had a moderate albuminuria. On examination the patient presents a slightly cachetic appearance. In both axillæ the skin is covered with small, round, flat or bluntly conical, firm papillæ of the color of normal skin or of a dull brownish-red. They are apparently follicular in origin. The papules vary in diameter from two to four millimeters. Most of the axillary region is covered with a close aggregation of these papules, suggesting in their arrangement a cobblestone pavement. In the very center there appears to be a complete coalescence of a few of the papules. About the borders the papules are smaller and of the color of normal skin, except an occasional one which is bright red, suggesting acute inflammation. Scattered over the upper arm and chest are a few, possibly twenty in all, pin-head-sized isolated

papules, apparently of the same type. There is a slight tendency to general keratosis pilaris. On the inner surface of the labia and about the anus a few individual papules may be recognized, but for the most part there is simply a diffuse infiltration or purplish-red hue with some whitish streaks, or puncta, on the surface, the whole suggesting lichen planus of the mucous membranes. Itching of this region is severe, but in the axillary region is very slight, and much of the time is entirely wanting. The urine contains about two per cent. of albumen, and shows an excess of skatol and a small amount of indican. No other evidences of definite systemic trouble have been discovered. Histological examination of the lesions has not yet been permitted. The case was considered unique by the members present. No diagnosis was ventured.

Grouped Milia. (Hypertrophy of the Sebaceous Glands?) Presented by Dr. MONTGOMERY.

The patient is an unmarried woman, twenty-five years of age, in good general health. The cutaneous disease is of six years' duration and began as a few yellowish-white grains beneath the skin. These slowly increased in number and size. The patient thinks none of the lesions ever disappears, though she has been able to remove the smallest grains herself with a needle. There are no subjective symptoms.

On examination the forehead and temples are seen to be thickly studded with small, flat, slightly elevated, moderately firm, yellowish-white discs, which on close inspection are seen to be made up by the more or less complete coalescence of from two to five (usually three or four) small, milium-like lesions, grouped irregularly about a follicular opening, which may be, but rarely is, centrally located. There are a few typical milia on the cheeks.

Lupus Erythematosus; Eighteen Years' Duration. Presented by Dr. MONTGOMERY.

The man is thirty-six years of age. The disease has been treated by various methods, including the actual cautery. When he presented himself two years before, he presented a severe type of the disease with much infiltration of the skin, with some corded and disfiguring scars, resulting from previous treatment. Photo-therapy was first tried, and with little success except in a few out-lying vascular areas in which there was little infiltration. Radio-therapy, given at intervals during a period of two years, had caused an almost complete disappearance of the disease, leaving soft, inconspicuous scars. The hypertrophic scars resulting from earlier treatment had also been made much less conspicuous.

Extensive Syphilide. Presented by Dr. PARDEE.

This case is of interest because of the present facial resemblance of the patient to one afflicted with lupus vulgaris, the extensive destruction

of tissue and absolute lack of specific history. The patient, a man thirty-five years of age, married and in good general health, states that four years ago he noticed a nodule on the neck below his left ear. No attention was paid to it until it began to spread. He then applied for treatment, but as his case was diagnosed as lupus vulgaris no benefit was obtained. The disease continued to spread over the scalp and face and down the back, until the nose was destroyed, the mouth distorted and one lower eyelid everted. About six months before he was presented to the Society, he was given X-ray treatment, following which the sight of the left eye disappeared and the eye gradually assumed an atrophic, scarred appearance, as at present. Venereal history was absolutely denied in this case and no evidences of it were to be found upon examination.

Under antisymphilitic treatment all activity of the process has ceased.

Lupus Erythematosus. Presented by Dr. PARDEE.

This patient, a negro forty-two years of age, gives a history of a traumatism of the scalp eleven years ago from which time he believes his present trouble to date. He has been employed at hard labor since a boy and has been much exposed to extremes of heat and cold. Otherwise, his history, family and personal, is negative.

The disease appeared first at the site of a traumatism in the center of the scalp and has gradually spread until at present the entire hairy portion of the scalp is occupied by atrophic scar tissue of various shades of color, from scarlet in the center to brown and blackish at the edges. Upon the cheeks, nose and ears are more recent lesions. Those upon the cheeks showing the same odd color-picture as the scalp.

Blastomycosis. Presented by Dr. QUINN.

This patient, a man aged thirty-five years, gives the history of a small, reddish papules occurring upon an old scar of unknown origin on the right shoulder. He applied for treatment and the papule was excised. Following this, lesions appeared upon the forearm and cheek. Potassium iodide was given him internally and some improvement noted. The lesions, however, increased in size as soon as the medicine was stopped. Microscopical examination of the lesions showed the presence of blastomycetes.

Psoriasis. Presented by Dr. QUINN.

Man, aged twenty-three. The interesting point in this case was the extensive involvement of the finger nails and hands, where the disease was said to have started.

L. C. PARDEE, *Secretary.*

THE PHILADELPHIA DERMATOLOGICAL SOCIETY

The regular monthly meeting of the Philadelphia Dermatological Society was held in the Medico-Chirurgical Hospital, Philadelphia, December 19, 1905, Dr. M. B. Hartzell, in the chair.

A Case of Mycosis Fungoides was shown by Dr. Stelwagon. The patient was a young man, twenty-one years of age. The disease had existed for about three years. The early stages were marked by eczematous attacks, but during the last nine months, the formation of tumors had been the prominent feature. Examination showed several fungoid growths varying in size from that of a hazel-nut to that of the fist, on the trunk, back, thighs, legs, and ankle. There were also several scars showing the sites of previous lesions. Itching was present. On the back, there was also a condition closely resembling xeroderma. During the short period the case had been under the observation of Dr. Stelwagon, the case had been subjected to six X-ray exposures, varying from five to seven minutes, at a distance of about six inches, with most encouraging results. The patient's general health had been unaffected by the disease.

A Case of Tinea Favosa of the Anterior Portion of the Neck Resembling in its Clinical Features Tinea Circinata was brought before the Society by Dr. S. H. Brown. Two weeks previously, the case had shown every evidence of tinea favosa, but under treatment with boric acid lotion the lesion had become changed in appearance until it came to resemble ordinary ringworm. The patient was an American boy, five years of age. When shown at the meeting, the disease had almost entirely disappeared. Dr. Hartzell referred to the history of another case of this disease occurring on the skin of a native-born woman in which the disease disappeared in a very short time under similar mild treatment.

A Case of Leukoplakia was exhibited by Dr. Stelwagon. The patient was an elderly man and had been affected with this condition for an indefinite period. Several of the members had observed him at other hospitals. The disease was located on the lower lip and on the left side of the dorsum of the tongue, well back. The lesion on the lower lip was decidedly white in color, and markedly rugous in character. A peculiar feature of the condition was the serrated edge of its internal border. In the discussion on treatment that followed, Dr. Hartzell related an instance in which the disease had undergone involution under such simple treatment as the application of equal parts of lanolin and petrolatum.

A Case of Lichen Planus was presented for consideration by Dr. C. N. Davis. The patient was a girl, ten years of age. The condition had

lasted four months and involved the trunk and extremities. In addition to the lichen planus there was a very interesting condition on the neck, shoulders, and arms, which Dr. Davis regarded as lichen spinulosus, a belief shared in by other members of the Society.

A Case of Urticaria Pigmentosa was shown by Dr. Schamberg. The patient, an infant fifteen months old, had been under the care of Dr. Fink, and had been affected with this condition for a period of eight months. The mother stated that the application of hot water brought out the wheals repeatedly and that they always appeared in the pigmented areas. In this case the lesions were generalized, affecting the scalp also. In reply to an inquiry, Dr. Stelwagon said to the effect that usually the disease undergoes spontaneous involution about puberty.

A Case of Epithelioma of the Right Lower Eyelid previously shown by Dr. Van Harlingen was again brought to the notice of the Society in order that the members might observe from time to time the marked improvement under X-ray treatment. Reaction had occurred after two exposures of six minutes duration at a distance of from five to seven inches. The escape of the conjunctiva from injury by the treatment was dwelt upon by Dr. Van Harlingen.

A Case of Keloid Following a Gasoline Burn was exhibited by Dr. Pfahler in order to show the marked improvement that had followed twelve exposures to the X-ray. Dr. Schamberg stated that he had obtained very good results in cases of this nature from the application of pure phenol.

An Unusual Case of Syphilis was presented by Dr. Stout. The patient first sought advice for a crescentic lesion on the right lower eyelid which looked to be traumatic in origin. Upon examination, other eethymatous lesions were found on the anterior portion of the chest. A diagnosis of syphilis was made and appropriate treatment instituted with very good results. The ocular lesion had also been observed by certain ophthalmologists who had advanced the opinion that it was either a primary lesion or an epithelioma. It, however, was conceded by the society that this lesion was an ulcerative syphilide, linear in configuration.

A Case of Naevus previously brought to the Society, was shown by Dr. Stelwagon in order to demonstrate the improvement that had taken place from mild treatment. The condition was located on the back of the neck. Pediculosis capitis was present when the case was first seen. Treatment was directed towards this condition, with improvement in both conditions.

A Case of Blastomycetic Dermatitis was exhibited by Dr. C. N. Davis. The patient was a middle-aged man, and the disease was located on the back of the right hand. The blastomyces had been found on microscopic examination. Potassium iodid had been administered over a fairly long period without any effect, but very beneficial results had followed exposures to the X-ray. It was also remarked that the patient was the subject of fistula in ano.

A Case of Epithelioma of the Hand shown on a previous occasion by Dr. Stelwagon, was again exhibited. The case had improved decidedly under X-ray treatment. An X-ray dermatitis had been produced very readily, necessitating withholding the treatment for a while.

A Case of Papular Syphilis of an Unusual Type was exhibited by Dr. Schamberg. The patient was a man seventy-one years of age, and had been the subject of the affection for a period of thirteen weeks. The eruption was made up of very small papules and was confined largely to the trunk and arms. Itching was present. At the beginning of the disease, there had been an eczematous condition of the palms which had subsequently disappeared. An epithelioma of the scalp in the region of the left temple, was also observed. Of interest, was the great tolerance of this patient to mercury. He had first taken an eighth of a grain of the biniodid three times daily. This was shortly increased to one-eighth of a grain every two hours, and after a period of four weeks, he was given a quarter of a grain every three hours. There was no history of an initial lesion.

Photographs of a case of epithelioma and a case of sarcoma of the breast were shown by Dr. Pfahler, in which the X-ray had been used with very gratifying results. He also showed a case of epithelioma of the lip in which several operations had been followed by recurrences and in which he had employed the X-ray with a fair measure of improvement.

A Case of Retrobulbar Sarcoma in which improvement had followed the employment of the X-ray, was also shown by Dr. Pfahler. A case of erysipeloid inflammation artificially produced by serum injections for the treatment of sarcoma, was also brought before the Society by Dr. Pfahler.

A New Protective Screen for use in X-ray Treatment was demonstrated by Dr. Pfahler. He reviewed the various facts concerning the absorption of the various rays by various substances, and how substances susceptible to certain rays retained the power of withholding these rays. For example, the rays which had the property of burning the skin could be withheld by anything resembling the skin in structure and constituents. Working on this theory, he has employed wet sole leather as a protective for the skin and has had good results following its use.

SAMUEL HORTON BROWN, Reporter.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of A. D. MEWBORN, M. D.

SYPHILIS OF SKIN AND MUCOUS MEMBRANES

By WALTER C. KLOTZ, M.D., New York.

Hydrargyrosis of the Mucous Membranes. CARL SCHUMACHER (Aix La Chapelle. Reprint from *Mayer Festschrift*).

The above article contains a very interesting discussion of a condition first described by the author as "Local hydrargyrosis of the mucous membranes," and consisting of solitary or multiple lesions of the mucous membrane of the mouth, fauces or pharynx, characterized by circumscribed areas of necrosis with superficial erosions or deeper ulcerations, or by proliferation and the formation of papillary excrescences, similar in appearance to secondary syphilitic papules. This affection is further characterized by the fact that it occurs independently of any manifestations of general hydrargyrim, stomatitis, gingivitis salivation, or intestinal disturbances. The author has observed two classes of cases: those of acute local hydrargyrosis, occurring during or shortly after the cessation of a course of mercurial treatment, and chronic local hydrargyrosis occurring some time after all mercurial treatment had been suspended. The above study, based almost entirely upon observations of the author's private cases, would make it appear that this affection may occur in connection or as a result of any form of mercurial medication, but that it is usually more severe in those cases in which mercurial treatment has been carried out without consideration of general hygiene. It would appear further that the course of the disease is usually very obstinate, but that as a rule it readily yields to treatment as soon as the cause is removed and the general condition of the patient improves. In addition, the author has employed local applications of silver nitrate and chlorate of potash, both locally, as a gargle, and administered internally. Clinically the greatest significance of this affection lies in the difficulty of recognizing it at sight, particularly to differentiate it at once from similar secondary syphilitic manifestations of the mucous membranes, as it is obviously of the greatest importance to avoid introducing any more mercury into the system, and thus aggravating the condition in the case of local hydrargyrosis. The differential diagnosis is

occasionally rendered especially difficult by two factors: the first, that syphilitic affections of the mucous membranes do occur unaccompanied by any manifestations of syphilis in other parts of the body, while on the other hand, local hydrargyrosis of the mucous membranes may exist without any other signs of mercurial poisoning.

The value of the author's article is greatly enhanced by careful clinical notes of a number of cases which form the basis of, and aid very much in illustrating the important features of his discussion.

Lichen Syphiliticus. S. EHRLMANN. *Wien. Klin. Woch.*, 1905, lv, p. 1974.

Following a short discussion of the term lichen, as used in dermatology, the author describes three clinical classes, in which this form of syphilitic lesion is found. The first class, corresponding almost to Unna's "Roseola granulata," is found generally in individuals who have previously been healthy and whose skin in particular has been perfectly smooth. This form may coexist with a macular papular eruption, and consists of a number of small elevations usually grouped about a hair follicle. The second class of cases includes individuals who have previously suffered with lichen pilaris, and in whom the lesions in certain portions of the body undergo syphilitic proliferation, while in other parts of the body, such as the extremities, the lesions retain their former aspect. These cases are characterized by the absence of the grouping usually found in lichen syphiliticus and lichen scrofulosus, and in this connection the author cites the history of a case illustrating these features. He remarks at the same time that a condition of hyperæmia of the skin always apparently predisposes to the development of syphilitic lesions (cutis marmorata, etc.). In the third class he places those cases properly called lichen syphiliticus occurring in cachectic individuals, and significant of a malignant course of the disease. The lesions consist of multiple syphilitic papules, not necessarily located about a hair follicle, undergoing superficial necrosis, leaving small punctate scars. He believes that some sign of tuberculosis can usually be found in these patients, and that clinically this class of cases is of importance in so far as in addition to the anti-syphilitic treatment, general hygienic and anti-tuberculous measures are indicated.

Palmar Syphilide and Epithelioma of the Tongue, Coexistence of. GAUCHER ET DOBROVICI. (*Bull. d. Soc. Fr. Derm. und Syph.*, 1905, xvi, p. 263.)

In view of the question of the relationship of syphilis and cancer of the tongue the above case ought to be of some interest. The patient, a man 56 years of age, denied having had syphilis, but whose family history positively indicated a previous infection, had been suffering for

three years with an eruption of the palm, and at the same time had been troubled with sores in the mouth and tongue. An ulcer developed on the left side of the tongue. This was resected and at the same time a small submaxillary lymph-gland removed. Two years later an ulcer again developed on the left side of the tongue, at the same site as the previous one. That is was not gummatous is shown by the fact that the palmar syphilide which had persisted for five years was cured by fifteen injections, but that even after thirty injections the ulcer of the tongue was little better.

MALIGNANT NEW GROWTHS

By ELIZABETH C. JAGLE, M.D., New York.

Epithelioma, A Case of Papillary. A Contribution to the Partial Spontaneous Healing of Epithelial Tumors. LEOPOLD SCHWARZ. (*Virchow's Archiv*, Bd. clxxv, Heft 3, p. 507.)

The author gives the results of his studies of the above in detail and an extensive bibliography on the subject. Briefly, the case was a rapidly growing epithelioma of papillary character in a man sixty years old, which on account of its hornification, was related to the cancroids, and on the other hand, owing to a partial calcification, belonged to the type of calcified epitheliomata. An extensive organization of previously inflamed tissue took place in a remarkably short space of time and was interpreted as partial spontaneous healing. Numerous foreign body giant cells were present, of connective tissue but also in part of epithelial nature. The tumor probably had its origin in an atheroma.

Epithelioma from Verruca Senilis, Concerning the Development of. LUDWIG WAELSCH. (*Archiv f. Derm. u. Syph.*, 1905.)

Dr. Waelsch prefaces his own report with a description of the findings and the histological interpretation of the same by the more prominent writers on the subject. He studied three cases, which differed sufficiently, clinically and microscopically, to merit separate descriptions, and from them he makes the deductions that the process has its starting-point in the hair follicles and sebaceous glands and that it is a seborrhoic one, but not in the sense which Unna conveys in reference to his senile wart. Neither does he consider the name verruca senilis justifiable, as in reality it is not a wart: nor is it senile, as it develops very often in comparatively young individuals and in those in the middle period of life. Originally, the condition is a seborrhoic one combined with very slowly progressing inflammatory changes with acanthosis and hyperkeratosis and really deserves the name of acanthosis verrucosa seborrhoica.

While Dubreuilh maintains that epitheliomata can only develop from

senile keratoses, the majority of authors are of the opinion that they will develop on the base of a senile wart, and Waelsch believes that the keratosis is only a variety of the wart or an early stage of the same. To support his view in favor of the transition into tumor formation, he cites a case with verrucae senilis of the hands, all of which lesions appeared alike clinically, but when extirpated and examined, one of them showed a distinct epitheliomatous change.

Rodent Ulcer, Radium Bromide in the Treatment of. SIR ALAN REEVE MANBY. (*Brit. Med. Jour.*, 1905.)

The author reports several cases of rodent ulcer treated by the application of a glass tube containing 5 mg. of radium bromide. He adds that the effect on the tissue of the first application seems to be nil; at the second or third marked hyperæmia is apparent, and later on a peculiar oozing from the previously dry surface; it is then that cicatrization commences and proceeds most rapidly. The cosmetic effect is better than that of any other treatment. The therapeutic agents from radium appear to be somewhat more complex than either from Finsen's light or the X-rays. Radium always maintains itself at a higher temperature than its surroundings, and gives off three different kinds of rays without any diminution of its original bulk. The combination of these rays is powerfully actinic and will affect a photographic plate through the thickness of twelve pennies, and if allowed to rest long on the skin, will cause similar intractable ulcers to X-rays. The little glass tube which contains 5 mg. of radium bromide has become a rich violet color which is probably due to the action of helium on the manganese in the glass.

Epithelioma of the Skin Cured by the Direct Rays of the Sun. M. HIRSCHBERG. (*Berl. klin. Wochenschr.*, 1905.)

The author had an epithelioma of the ear 1 1-2 by 1-2 cm. in size which he had planned to have removed by the knife on his return from a visit to Caux, near Lake Geneva. While in Switzrland, the weather being exceptionally fine, he took long walks in the sun and after two weeks, noticed that the epithelioma had decreased in size. Suspecting the cause, he made a point of exposing the ear to the sunlight as much as possible, and during the two weeks that followed the lesion healed with the exception of a pin-head sized spot on the summit of the helix, which he treated on his return home with caustic potash. After eight months no recurrence has set in. Dr. Hirschberg advocates further trials of this method of treatment, but says it must be carried out in the mountains and in winter preferably, as the ultra-violet rays are nearly all absorbed by the dense moist dust-laden atmosphere of the lowlands, and in summer there is always the risk of erythema solare if there is prolonged exposure to the sun.

HYPERTROPHIES.

By E. C. JAGLE, M.D.

Warts, Lime Water in the Treatment of. J. BURDEN COOPER.
(*Brit. Med. Jour.*, August 26, 1905.)

The writer considers the administration of lime water internally as a specific in warts and allied conditions. He made the observation quite accidentally while taking lime water for some digestive disturbance for a period of ten days. At the end of two weeks a wart on his thumb, which had not yielded to local treatment, had entirely disappeared. He tested other cases with most marked success. The time taken for the total disappearance of the wart varies from four days to six weeks. He advises the use of the remedy in wine-glassful doses with a little milk added, to be taken after the mid-day meal.

Warts and Corns. ARTHUR EVERSHERD. (*Brit. Med. Jour.*, August 12, 1905, p. 329.)

According to the author, the best and most effective remedy in the treatment of warts and corns is sea water. Daily sea bathing or warm foot baths will cause the corns to peel off in a fortnight. Warts on the hands are treated by placing the affected parts in warm sea water or a solution of sea salt twice a day for at least ten minutes at a time. Cauliflower warts of the scalp will yield to this method of treatment, though not so quickly as those on the hands. They are best treated by the application of a compress of sea water left on all night and repeated each night for two weeks.

Scleroderma. HARVEY P. TOWLE. (*Boston Med. and Surg. Jour.*, December 8, 1904.)

The patient was a female, aged nineteen years, with negative previous and family histories. The disease had begun three years ago with sores on the knuckles and the ends of the fingers, the latter being cold, blue and painful. In a year they healed, but sores which appeared on the large joints of the upper and lower extremities still persisted. Her back and legs and later her forearms and fingers became stiff and two years ago her skin became universally pigmented. For nine months the pigmentation remained unchanged and then white spots appeared which increased in size and number. The patient was much emaciated and extension of the elbows and knees was impossible, beyond a right angle. The skin of the whole body was speckled brown and white, except the back, which was uniformly brown. The lighter areas were atrophied, but little if at all depressed. Over all the large joints, as wrists, elbows, knees, and many of the knuckles, on the outer sides, were wart-like

crusted lesions on a reddened and indurated base. The toes on the left foot became blue and painful, but in a few days the condition subsided and she developed a gangrenous spot on the ball of the left big toe. Her general health gradually grew worse and she was very weak when she left the hospital.

Hyperkeratosis of the Nail-Bed, Three Cases of Hereditary. By A.

GARRICK WILSON. (*Brit. Jour. Derm.*, January, 1905.)

In the cases cited there was a typical hyperkeratosis of all the nails of the fingers and toes in grandmother, mother and child of one family. All had had the affection since birth and there were no anomalies elsewhere. Of twelve other children in the mother's family three were affected, and of her own children, in addition to the one mentioned, still another showed the same condition. The surface of the nails is smooth and at the base normal in appearance, but towards the free extremity the nail becomes raised up from its bed by a dark, friable, horny mass which projects under the free edge. The nails grows much faster than the horny tissue underneath. There is no pain, but, of course, a great deal of inconvenience. When knocked, the tissue around readily becomes inflamed and the nail comes off. The new one at first appears normal, but a gradual growth of horny tissue takes place in the nail-bed and raises the anterior part. The author can give no explanation except that of heredity.

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ADDITIONAL OBSERVATIONS ON THE USE OF RÖNTGEN RAYS IN DERMATOLOGY.

By HENRY W. STELWAGON, M.D., Philadelphia.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

AT the twenty-seventh annual meeting of this Association in May, 1903, I gave a résumé of my experience with the Röntgen ray treatment of various cutaneous diseases. It is my intention now, in the light of wider experience, to pass briefly in judicial review my conclusions as then formulated. As to apparatus, I then thought there was practically but little choice between the static machine and the coil; more extended observation has proven the greater readiness and convenience of the coil, but I can still warmly endorse the use of the static machine as equally efficient therapeutically; and it is, I believe, a much less dangerous apparatus in the hands of the inexperienced, as well as, in fact, in the hands of the experienced. It is, however owing to varying atmospheric moisture, capricious, and I use it much less than formerly, the coil largely having taken its place in my work. The constancy and greater efficiency of the coil also make it vastly superior in connection with the proper apparatus for the production of high frequency currents. Good curative effects can, as I formerly stated, be obtained in cutaneous diseases with a coil of six inches spark, but one of twelve is probably the most generally useful, and is far superior when used in connection with high frequency apparatus.

As to the vacuum of the tube, my present opinion is about the same as that previously stated, and is in accord with most observers—the vacuum should rarely exceed at the most that equivalent to a three inch spark, and between one and two is doubtless the best. I now question the advantage of the custom of maintaining the same

vacuum throughout an exposure as previously expressed; I now believe that it is much better to begin the exposure at a vacuum equal to about one to two inch spark, and then disconnect the regulator and allow the vacuum to slowly rise during the exposure. In this manner I believe the disease in its varying depth can be the better influenced. This applies more especially to the use of the rays in epithelioma and in other growths of some depth or thickness. In superficial dermatoses the vacuum should rarely exceed in the beginning one inch, and even a lower vacuum seems at times more efficacious.

As to the degree of action, I believe as formerly, that while some cases are amenable to curative influence without the production of visible X-ray effects (erythema, etc.), still that in the great majority of cases, improvement does not present till X-ray dermatitis has been excited. Except in epithelioma and similar disease, it should not be purposely allowed, however, to go beyond the slightest possible erythema. Its exact degree can not, unfortunately, always be gauged, and occasionally the second grade burn ensues; beyond the discomfort and disfigurement temporarily produced, this rarely leads to any disagreeable consequences. Exceptionally, it is true, atrophic changes, such as thinning and wrinkling of the skin, atrophic lines and spots follow what might be ordinarily regarded as even careful and moderate employment of the rays. I have now seen this follow to a marked degree in one case of acne, and as a slight temporary condition in two or three other cases. In the first case referred to, the atrophic changes did not develop until several months after the last cycle of exposures. After each cycle of six to eight exposures, the first cycle having been given by myself, decided X-ray reaction followed, showing itself as distinctly marked erythema with some swelling and moderate vesication which took from three to six weeks to disappear. The acne eruption was always practically removed by this action. At the end of from three to five months, the acne began to present again and the patient sought another cycle of X-ray exposures. The second, third, and fourth cycles were given by a physician in her own neighborhood—skilfully and cautiously given—with the same results as when under my own care. These atrophic changes, closely resembling old age changes, are slowly becoming less marked, the wrinkling being the first to begin to disappear. In another case, of scirrhus of the breast, which had been first excised, and the afterward recurrent manifestations treated by the X-ray, the disease has been apparently cured—now, some months after the

X-ray exposures had been discontinued, localized telangiectases, thinning of the skin and red, somewhat scaly, spots are appearing over the parts rayed, and in one there are keratotic changes indicating possible epitheliomatous development, apparently entirely distinct and independent of the original disease.

The time of exposure and distance of the tube I have found no reason to change from that of my former practice. In the first several séances, except as to epithelioma and other malignant dermatoses, I still believe a distance of ten inches from the tube and an exposure of three minutes' duration the safest; in epithelioma and the like, the duration of first exposures can be safely five minutes. In the milder dermatoses time of exposure should at the most rarely exceed ten minutes, and the distance be rarely less than six to eight inches; and these only reached cautiously. In the more malignant dermatoses, final duration of exposures and distance limits can be much more boldly approached; the tube in obstinate cases almost touching the surface and the duration extended to fifteen to twenty minutes or much longer. In changing from one tube to another in the same case, duration should be lessened and distance lengthened for the first two or three exposures, for experience shows that under the same apparent conditions, different tubes may have different degrees of action. With proper control gauges or dose meters of X-ray energy, one need not be so cautious; at the same time one must concede that as yet there is much that is lacking in the X-ray gauges or meters now on the market to make them absolutely accurate and safe.

The necessity of protecting parts other than those under immediate treatment, need scarcely be referred to again; I believe now that it is wiser not to be too strict in our interpretation of the exact area of disease; and to allow a fair margin of exposure to the surrounding apparently uninvolved tissues. The necessity of the operator being thoroughly protected becomes more and more urgent as one's work in this method increases, and if X-ray apparatus is to remain a part of our daily therapeutic equipment. Boxing the tube is of greatest value, both for patient and operator, and this should be supplemented by a metal screen between the tube and operator while the tube is in action. The X-ray production should be shut off before the operator approaches the tube to change its position or for other manipulation; and if there is constant daily use of the X-ray, ray-proof gloves should be worn when the tube is manipulated just after the X-ray production has been stopped, for there remains for

some time after stopping off the current an X-ray glow in the tube that can in itself finally after repeated exposures to it be damaging.

Coming to the consideration of particular diseases, I can say as formerly, that its value in epithelioma no one can deny; often curing cases and sometimes promptly, but not often, however, without the production of mild or more or less decided X-ray reaction. In many cases, curative action is exceedingly slow, and in some fails entirely. I can not agree, therefore, with the statements of some of my colleagues, that practically all cases of cutaneous carcinoma can be cured by the X-rays. While conceding the great curative value in some cases, I feel that I can still more positively assert, with but slight modification, my conclusions given in the former paper as follows: "If results were quickly and easily obtained in all cases as in some instances, this method would supplant every other; but if, as is more usually the case, treatment must be tedious and long continued, and necessarily of great cost to the patient, it is a question whether, with such an outlook, another plan of treatment by excision, curettage or caustic enucleation should not be urged upon the patient. In fact, I am becoming more and more impressed with the belief that the best of all treatment for the average case of epithelioma is first enucleation, either by excision, curette or cauterization as may seem most expedient in the individual case, and the immediate supplementary application of the X-rays, to the extent of probably five to ten or more moderate exposures. This plan would give the most rapid results and at the same time give the least chance of recurrence. But many patients will prefer the often long and comparatively mild method by the X-rays, rather than submit to the quicker and more energetic plan. It is only fair, however, that the facts of the various plans should be first clearly stated to the patient and the probability fully set forth that the X-ray treatment alone might be long and tedious, as well as a more expensive one."

Its action in lupus vulgaris is sometimes brilliant, although even in such instances almost always slow; sometimes it is only moderately effective, and in other cases slight or almost or entirely negative. Nor can its therapeutic action, with our present knowledge, be predicted in any given case, in each its use must still be experimental. Its action in lupus erythematosus while occasionally satisfactory, is much less certain than in lupus vulgaris.

In acne I have still continued to get markedly favorable results in many cases, but wider experience has shown that it is not of the same curative value in all cases, and in some has but little influence

unless pushed beyond the safety limit. Moreover, relapses are also not uncommon, but not so common as with other methods. I have come to the conclusion that its use in acne should be extremely cautious, and that it is probably best reserved for the obstinate and extensive causes. The best and quickest results are, as a rule, only attainable after the production of a mild erythema. The danger of atrophic changes should be borne in mind, several such cases, as already referred to, having come under my observation. Such changes, it is likewise to be remembered, may not present for several months after exposures have been discontinued. Moreover, it is not improbable that in some instances, as patients state, it stimulates a downy growth of hair. Many cases of acne can, in fact, be treated just as well without X-ray exposures, especially if time is not limited; and even when the Röntgen treatment is employed, it is, in my opinion, wiser to use it conservatively and in conjunction with the other known methods of treatment.

Its action in average cases of psoriasis is not such, considering the trouble and possible accidents, as to commend its use in preference to the usual methods; it should, in fact, be reserved for obstinate and large areas; and this conclusion can be asserted more positively than in my former paper. The same remarks hold practically true as regards its use in eczema—limiting its employment to obstinate thickened areas, and to rebellious localized forms, as for example, persistent eczema of the hands; in all such cases, however, especially the latter, it should be employed conservatively and with great caution. In eczema, otherwise easily managed, it should have no place, and in my opinion in eczema in infants, it should never be employed. In keratosis of the palms, and in localized hyperidrosis I still retain my opinion of its sometimes favorable action as previously expressed. I have since used it in sycosis, with evident curative effects, but I always employ it cautiously and conjointly with the former ordinary methods of treatment. I have not used it in hypertrichosis, considering as formerly, that the risks are too great, and the effects, according to reports, not sufficiently favorable. Sabouraud and Noiré have popularized its employment in ringworm of the scalp; and from my own observations of this method during my visit in Paris this past summer, I can fully and cordially confirm the good results reported by these observers. I saw no bad results, but I regret to say that the pastilles which they use for measuring the dosage may sometimes fail, if I am to judge by those I brought home with me.

Finally, I can say, repeating to some extent, my former con-

clusions, that we have in the X-rays a valuable addition to our therapeutic resources, but by no means a measure that should be used indiscriminately or be permitted to supplant other methods equally useful, without the possible deleterious effects; that its application should be extremely cautious and conservative in non-malignant dermatoses, and except in extremely obstinate cases, used more as an adjunct than as the sole remedy; that in malignant diseases it can be used somewhat boldly and often with the prospect of cure or at least distinct amelioration; but that even in such diseases it may often be more advantageously employed as a helpful and supplementary measure than as the sole method of treatment.

DISCUSSION

DR. CHARLES W. ALLEN said that in order to learn what the X-rays would do in dermatology, it was necessary to rely very largely upon personal experience. Since he had first begun to speak and write upon the subject, he had maintained a conservative position, and he was more conservative in regard to it to-day than ever before. He employed the ray as a therapeutic agent more than ever before, and he liked it better for certain diseases, but he had become convinced that it must be used with greater care than had hitherto often been the case. Personally, he did not think it was justifiable to produce such an erythema as was shown in the photograph of one of the cases of acne exhibited by the reader of the paper. He did not agree with Dr. Stelwagon that it was necessary to produce such an erythema in the treatment of acne, and he thought that permanent changes in the skin might result therefrom. In the treatment of acne, the effect of the rays should be expended on the deep follicles and glands, and no effect on the superficial tissues was necessary. The latter could be taken care of with antiseptic washes, etc., but for the deeper structures, the rays were useful.

Dr. Allen said that in the treatment of skin diseases and cancers he now tried to combine different methods, so as to get the best results from all. Instead of relying upon the X-rays alone, he also used electrolysis, the high frequency spark, or some other method, not neglecting the older medical and surgical remedies. As an example of the value of combining different methods of treatment, the speaker cited the case of a woman with a rodent ulcer, about the size of a ten cent piece, underneath the eye. He first encircled the lesion with punctures of the electrolytic needle, then used the high frequency spark until the surface of the ulcer was covered with a varnish-like secretion, and finally

applied the X-rays with the result that he got a beautiful, soft scar in a remarkably short time.

Dr. Allen said the results obtained with the Sabouraud radiometer differ with the size of the tube and the distance of the disc from the anode. In his own work he made use of a metallic, non-radiable back, for the disc, which checked the rays, and which was placed as near the surface of the globe as possible.

Dr. LOUIS A. DUHRING referred to one disease which Dr. Stelwagon had not mentioned in connection with the X-ray treatment, namely, psoriasis. He had employed it in this disease for several years, and, on the whole, his experience with it had been unsatisfactory. He recalled the case of a man who had a patch of psoriasis, about the size of an adult hand upon one thigh. The X-ray had been applied at intervals for a period of six months, to this and to other patches. At first, there was improvement, but to the thigh patch, without warning, a violent reaction set in, the inflammation with suppuration extending down to the subcutaneous connective tissue. The patient was obliged to take to bed for some time. For six months prior to this occurrence, however, the rays had been used as stated, with a certain amount of benefit; then suddenly this violent reaction set in, accompanied with much pain.

Dr. Duhring said that in another case of psoriasis, with numerous small, extremely rebellious patches on the abdomen and chest, the use of the X-rays at frequent intervals for a month resulted in a brownish pigmentation which lasted nearly a year. In short, the speaker said, his experience with the rays in psoriasis had not been satisfactory. He agreed with Dr. Allen that in order to obtain the good effects of the rays it was not always necessary to produce a dermatitis. It was not so much the surface we wished to influence, as it was the nerves leading to the skin, and he believed that with this idea in mind we obtained the best results with the X-rays. His experience with the rays had led him to fear the superficial changes in the skin produced by that agent, and he had become convinced that we could not be too careful in their use. Patients should always be warned of the possible untoward effects following the use of the rays. The speaker said he had seen some favorable results from the rays in connection with disorders of the deeper structures of the skin without producing dermatitis.

Dr. A. RAVOGLI said he had formerly felt very enthusiastic in regard to the value of the X-rays in dermatology, but the more he used them, the less he liked them. About two or three years ago he reported a case of carcinoma of the chest in a man which almost healed under the application of the X-rays, but a few months later the patient died of internal metastases.

In psoriasis he had seen the lesions rapidly disappear under the use of the rays, only to re-appear in the course of a couple of months. The same was true of its use in other skin diseases, and for that reason

he had come to the conclusion to resort to other and less dangerous methods of treatment, leaving the X-rays for those cases where nothing else would do as well.

DR. M. B. HARTZELL said he had seen numerous cases of acne and other diseases of the skin where a cure had been effected without the production of a dermatitis, but in view of the absence of any reliable method of measuring the dose, he did not see how it was possible to avoid untoward effects occasionally. He called attention to a species of filter, consisting of a piece of sole-leather, employed by Dr. George E. Pfahler, of Philadelphia, by which we might be able to eliminate the harmful effects of the rays and retain their beneficial effects. He regarded this as one of the most important innovations that had been made recently in connection with this subject.

DR. WILLIAM A. PUSEY said that in a general way he agreed with the statement contained in Dr. Stelwagon's paper. He differed with him, however, to this extent, namely, that he had not found the X-ray to be such a capricious agent as Dr. Stelwagon and some of the other speakers would lead one to believe. Personally, the more he had used it, the more he had become impressed with its possibilities for danger, but his convictions were quite different from those of the other speakers as to its totally unreliable character, and as to its being dangerous regardless of the care with which it was applied.

The speaker said that in his opinion, the X-ray could be used with perfect assurance of safety providing caution and patience were employed in its manipulation. From the very beginning, he had adopted the technique of Freund, of Vienna, and he considered that his comparative immunity from unfortunate results was due to the fact that he gave the X-ray in much smaller quantities than the average operator. It was purely a question of the amount of X-ray you had in the tube. He was in favor of using a minimum quantity and making repeated applications, so that the effects of the ray were secured slowly and carefully. In treating acne, for example, his routine practice was to limit the time of exposure to five minutes at a distance of fifteen centimetres from the tube and repeat the application every day. This treatment could be carried on for weeks, until the necessary effect was obtained.

Dr. Pusey said he had given the pastilles of Sabouraud and Noiré a trial, and regarded them as practically useless. He also considered the method of protection suggested by Dr. Allen as useless, because X-rays were deflected, not absorbed. How then could we gauge the strength of the rays? The speaker thought it could be judged accurately by the character of the glow in the tube. Personally, he preferred a glow in the tube that was pale apple-green in color. The leather filter suggested by Dr. Pfahler, to which Dr. Hartzell had referred, was on the same principle as the aluminum foil screen devised by Elihu Thompson. This would cut out the rays that were absorbed by the skin, and make the use of the rays much safer.

In closing, Dr. Pusey said that at a previous meeting of the Association he took part in a symposium on this subject, and he was still perfectly willing to stand by the statements he had made at that time regarding the value of the X-rays in dermatology.

DR. JOHN A. FORDYCE said that in the treatment of malignant disease of the face, he would emphasize the value of curetting the lesion before using the X-rays. This was especially true in dealing with fungating forms of epithelioma. In several cases which the speaker had treated in that way, the beneficial effects of the X-rays were observed much sooner than where the curette was not used at all. The curettage in these cases was not done as thoroughly as in cases where that measure was relied upon without the use of the X-rays.

DR. EDWARD B. BRONSON said he wished to add his testimony to the value of the X-rays, although upon that point there was not much discrepancy between the views of the different speakers. He regarded the technique as a matter of importance. But in order to apply the rays safely and satisfactorily, experience with judgment was the chief thing necessary, and he agreed entirely with Dr. Pusey that practically one determined more by the appearance of the tube than in any other way. The fluoroscope was of comparatively secondary importance, and the various instruments of precision (so-called) had been disappointing. Personally, he depended more on the glow of the tube than on anything else, but he preferred a glow of greater intensity than that mentioned by Dr. Pusey: instead of a "pale apple-green glow," he preferred a more yellowish color indicating a lower tension in the tube, and he found that more effective in treating superficial diseases of the skin, for it was in that class of cases that his most brilliant results had been obtained. The X-ray was a remedy which acted first of all most potently and most obviously on diseases in which the cellular layer of the skin was especially involved. Conditions of hyperkeratosis, as often occurred on the palms or soles, which were usually considered refractory to treatment, often yielded like magic to the influence of the X-ray. The same was true at times of certain forms of eczema, particularly that known as eczema squamosum, and also some cases of recurrent eczema of long standing and comparatively sub-acute in character, might be absolutely cured by the use of the rays, without producing the slightest inflammatory reaction.

Dr. Bronson said that some of the best results he had seen produced by the X-rays had been in acne, not of the simple type, but cases where other methods had been unsuccessful, and more particularly in indurated acne. In such cases it was essential to produce a decided modification of the follicles, and that he had seen done by the X-rays. The object was to produce just the necessary degree of atrophy which usually required a slight erythematous reaction, a degree that would not seriously destroy the integrity of the skin, and yet would check its morbid activity. In such cases he knew of no remedy that could compare with the X-rays.

In rosacea, which was often associated with follicular disease, the effects of the rays were at times almost magical, especially in the pustular forms of the disease. He had also found it of value in pronounced cases of hirsuties, where treatment by electrolysis was an almost interminable task and always left the skin more or less scarred. While the possible dangers of the remedy should not be lost sight of, and while it might at times produce a certain amount of atrophy of the skin, it was simply a question whether the patient wished to take that risk in preference to having the constantly recurring beard. The speaker said he did not advise the use of the rays for the removal of hairs on the upper lip, but in aggravated cases of hypertrichosis, especially about the lower part of the face and on the cheeks he had found the applications very efficacious and fully justified by the results.

In the treatment of the deeper affections of the skin, Dr. Bronson said he had not met with the same success with the X-rays as in the more superficial forms. He had found it valuable, however, in dealing with rodent ulcer and superficial types of lupus, but not in the deeper forms of the latter affection.

DR. JAY F. SCHAMBERG said the interposition of any substance like an aluminum screen or a leather filter would lessen the absorption of the superficial rays by the skin, and enable the other rays to penetrate into the deeper structures. Therefore, with such a protective appliance, it would be necessary to prolong the exposures or the time of treatment in dealing with such affections as superficial epithelioma or acne.

In regard to the degree of vacuum of the tube, Dr. Schamberg said that most of the American radiologists and dermatologists employed a medium low tube in the treatment of superficial affections. In Europe this is not the case. Freund insists on the use of high vacuum tubes, for instance, in the treatment of hypertrichosis. Dr. Schamberg said that while he had otherwise followed Freund's technique, he had restricted himself to the use of medium low tubes, and with these he had found the process of depilation more tedious than in the cases cited by Freund. The stimulation of the hair growth that had been reported in cases of acne treated by means of the X-rays, the speaker thought was more apparent than real, and was due to the impression made on the mind of the patient by the whitish, downy hair standing out more prominently upon the pigmented integument.

In the treatment of superficial epitheliomata, Dr. Schamberg said, the application of the X-rays was almost universally successful, and in dealing with deep, rodent ulcers about the canthus of the eye, with an excavation of tissue, it was the treatment *par excellence*, and would often effect a cure where nothing short of an extensive surgical operation would have achieved the same result. The rays also often give brilliant results in the treatment of recurrent vesicular eczema of the

hands. In acne, it should be conjoined with other remedies, and used only to the point of producing a degree of atrophy of the glands.

In closing, Dr. Schamberg said he believed that the X-rays, used with a moderate degree of caution, were extremely safe, and dermatologists were becoming more and more enthusiastic regarding their value, whereas radiologists in general were less well satisfied with the effects of the rays in the treatment of malignant diseases involving visceral organs.

DR. THOMAS C. GILCHRIST said that as the X-rays possessed no bactericidal powers, we had to depend upon their destructive action for a cure of the disease to which they were applied. The speaker said he had employed the X-rays a good deal during the past three or four years, and he could indorse what the previous speakers had said regarding their use in acne vulgaris. In these cases, he applied the rays until a mild erythema developed, or until the patient complained of itching or flushing at night. In acne his results had been good, although some relapses had occurred. The same was true of lupus, but in those cases the recurrence was generally due to the presence of deep-seated nodules that had remained unaffected.

In lichen planus he had seen cures effected very much quicker by this method than by any other with which he was acquainted. In psoriasis his results had also been good, but relapses had occurred in some instances, and they were usually as persistent as the relapses occurring after other methods of treatment. He had obtained good results with the rays in chronic, obstinate cases of eczema, but had not found them of much service in acute cases. In dermatitis herpetiformis they had had no effect whatever, and in lupus erythematosus the results had not been satisfactory.

In dealing with rodent ulcer and various other forms of malignant tumors, Dr. Gilchrist said he was in favor of doing a preliminary curettage, as the X-ray did not have much effect upon the growth until the hard edge was broken down. The speaker said he was opposed to the treatment of epithelioma of the lip with the X-ray, on account of the early involvement of the glands in those cases. His results with the rays in hypertrichosis had been good. In alopecia he could only recall a single case where stimulating applications of the rays, consisting of a five-minutes exposure twice weekly, had prevented to some extent the further loss of hair.

In a case of keloid of both ears in a negress, following the piercing of the ears for ear-rings, the tumors were excised three times, only to immediately reappear. Dr. Gilchrist was then consulted regarding the case, and he suggested that the growths should again be removed and the X-ray applied as soon as primary union had occurred. This was done, now over three years ago, and the keloids had not returned up to the present time.

Dr. Gilchrist said he had also had very good results with the rays in tinea sycosis. The action of the rays in all cases, he thought, depended upon the reaction it produced on the skin, or its destructive action on the epithelium.

DR. S. POLLITZER said sufficient evidence had been adduced that the X-ray was a pretty good thing, and the discussion regarding it was in general harmonious as to its indications and advantages. He did not wish to delay the proceedings by adding his testimony, but he asked for the experience of the other members in regard to the use of the X-ray in cancerous or epitheliomatous growths of the mucous membrane. Within the past year he had seen two cases of epitheliomatous growths of the mouth that were referred to him by surgeons. One of the patients was a middle-aged woman, with a typical epitheliomatous ulcer on the inner side of the cheek. The other was an epitheliomatous proliferation on the anterior pillar of the fauces in an elderly man. Both of these cases did very badly. In the case of the woman, after seven or eight exposures to the X-ray, which would usually suffice to bring about marked improvement or even cure in dealing with epitheliomata involving the skin, the patient's condition became aggravated, and she complained of such severe pain that the treatments had to be discontinued. In the meantime, the ulcer had increased in area, and had an angry appearance.

In the case of the elderly man some thirty-five exposures were given, and while the disease was apparently held in check, because after the cessation of the treatment there was a more rapid evolution of the malignant process, the treatment certainly did not effect a cure.

DR. FRANK H. MONTGOMERY said that generally speaking, as the result of the experience of Dr. Hyde and himself with the X-ray, he could indorse the stand taken by Dr. Stelwagon, but still more so that taken by Dr. Pusey, with the single exception that the speaker favored the use of a softer tube, like that suggested by Dr. Bronson.

One factor that had not been referred to by any of the speakers, and which would always stand in the way of any prescribed formula or dose in X-ray therapeutics, was the individual susceptibility of the patient. Even if it were possible to control accurately our X-ray dosage, it would still be necessary to make the applications with great caution on account of the personal equation.

Dr. Montgomery said that after a considerable experience with the X-ray, he had never had any bad results from it in the way of troublesome dermatites or burns. Such accidents, he thought, were much less commonly observed now than formerly, but recently he had seen a number of cases in which an atrophy of the skin had followed the mild but long-continued applications of the ray. He could recall at least two such instances where the patients declared that in none of their

treatments were they conscious of any hyperæmia as the result of the application of the ray, and yet they showed to-day marked atrophy of the skin. In both of those cases, the applications had been made for the relief of acne.

Dr. Montgomery said that in one case of hypertrichosis where a rather too free application of the ray was given, the only reaction obtained was a pigmentation of the skin, which was followed in time by a very distinct atrophy.

In the treatment of superficial epitheliomata in which the lesions were covered by a hardened crust or edge, a preliminary curettage was advisable in order to hasten the cure; he did not consider the use of the curette absolutely essential, and had found it unnecessary in dealing with small cutaneous epitheliomata, which disappeared very rapidly under the influence of the ray.

Dr. Montgomery said he could indorse what Dr. Bronson had said in regard to the value of the rays in acne, and the remedy had also given him excellent results in rosacea and lichen planus. He rarely used the X-ray alone in the treatment of any disorder, excepting in the case of malignant growths. The speaker also referred to the value of this remedy in dealing with eczema of the hand, usually with hyperidrosis or dysidrosis: also in acute persistent dermatitis caused by formalin, and occasionally observed in laboratory workers and nurses. Their experience with the rays in lupus erythematosus had been much more favorable than that indicated by the remarks of one of the speakers.

Dr. STELWAGON, in closing, said that, in using the pastilles of Sabouraud and Noiré, he did so in connection with the holder especially made for the purpose, by means of which the pastille could be held directly in front of the tube. He had brought the pastilles from Paris, and the tube he used was very similar to that he had seen there.

The speaker said he had not meant to indorse the view that it was necessary in the treatment of acne by the X-ray to produce an erythema in order to effect a cure in acne, but he did believe that the production of a mild erythema would materially hasten the disappearance of the acne lesions.

As to the color glow of the Crookes tube, the speaker said he did not think he could rely upon that as an accurate guide, as it appeared different under different degrees of daylight or artificial light. During certain hours on a bright day the light in his office was such that he often found it necessary to draw the curtains in order to see whether the tube was glowing at all.

As to his technique in applying the rays, Dr. Stelwagon said it was probably the same as that of Dr. Pusey and others. One great mistake that many X-ray writers made in describing the amount of current employed was that they failed to state the voltage they were

using. To simply speak of amperage, without stating the voltage, meant nothing at all, as the strength of current was dependent upon those two factors.

Dr. Stelwagon said that in his X-ray work, he always tried to employ the lowest current that would answer the purpose. He could indorse what Dr. Montgomery said in regard to the susceptibility of certain individuals to the influence of the rays, and it was on that account, he thought, that an erythema was produced in one patient, while another, with the same strength of current and the same time of exposure, escaped. Personally, he had noticed this individual susceptibility many times.

Dr. ALLEN, in explanation of his former statement, said he did not wish to go on record as saying that the X-ray was deflected, which everyone knew was not the case, but that it was most efficient when it was stopped by something, and that absorption took place when it met with something that checked it. The metallic plate for the radiometer disc was suggested with that view.

THE CLASSIFICATION OF BULLOUS DISEASES.

Introductory to a general discussion of the subject.

By JOHN T. BOWEN, M.D., Boston.

Read at the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

IT is generally conceded in the dermatological world to day that the word pemphigus can no longer be accepted in its old sense as representing almost all bullous eruptions not due to traumatism, or which are a stage in the evolution of some well known dermatosis. It is equally certain that while an advance has been made in eliminating many forms from this class, no unanimity has been reached, and that the subject is very far from being scientifically settled. It has been my fortune, within the last ten or fifteen years, to see what has seemed to me a considerable number of varied forms of bullous dermatitis, many of which I am free to confess I cannot classify with much satisfaction to myself or others. Certain features in the various cases have, however, impressed themselves upon me; so much so that I feel confident that certain types may, at least provisionally, and for the sake of study and further

knowledge, be separated from this group and placed by themselves. Some of these subdivisions are well defined and clearly cut; others, unfortunately, are not so, and offer a very fair opportunity for difference of opinion. The group that has been so ably described by Duhring as dermatitis herpetiformis, has come to be regarded by almost all as entitled to its own place. We are not, however, in accord as to just what shall be included in this group.

Leaving out, as I have said, the bullous eruptions caused by traumatism or appearing in the course of, and as a symptom of, certain well defined diseases, I would propose dividing the bullous dermatoses into the following provisional groups. Admitting fully the incompleteness of this classification, they are groups that seem to me to stand apart, from my own experience and reading.

1. *Acute infectious bullous dermatitis.* This is the form that has been described as acute infectious pemphigus. It matters little whether we maintain the old name of pemphigus for this variety, so long as we appreciate that we are dealing with a distinct type of disease absolutely different, both clinically and etiologically, from the chronic forms of bullous eruption that were formerly all classed as pemphigus. This form has been observed almost entirely in butchers or in people who had to do with animals or animal products. An infected wound is almost always the starting point, and the mortality is very high. Such a case was reported by me in June, 1904, as occurring in a butcher; and as an epizootic of foot and mouth disease was prevalent at the time, a consideration of the possible relationship of these two affections was deemed proper. It was also considered probable that the epidemic of acute, apparently infectious, bullous dermatitis following vaccination that occurred in Boston in 1902, and reported to this Association by Howe, belonged in the same class.

With regard to the cases of acute pemphigus in infants, I am in accord with Brocq and the French writers who regard most of the cases published under this heading, as due to the pyogenic micro-organisms and as a form of impetigo contagiosa. I have seen in the same family, impetigo contagiosa in its typical form affecting several of the older children, while the infant of the household presented a well marked bullous eruption, similar to that described as pemphigus neonatorum.

2. *Chronic hereditary bullous dermatitis.* This form has been described under various names, as epidermolysis bullosa hereditaria, hereditary predisposition to bullous lesions, and traumatic pem-

phigus. In this form, as is well known, bullæ form rapidly at the slightest traumatism, especially on the elbows, wrists, knuckles, and parts most exposed to injury. The cases of bullous eruption, accompanied by the formation of epidermic cysts, and followed by cicatrices, I regard as representing simply a variety of this form. Such a case I reported in 1898.

3. The form of bullous dermatitis which was described first by Neumann under the title of *pemphigus vegetans*. The localization of the lesions, their papillomatous character, the progressive fatal course of this affection, all point to the probability that this is a specific, distinct disease.

4. The form of bullous dermatitis described as *pemphigus foliaceus*. Although perhaps not so sharply defined as the preceding form, this affection offers sufficiently pronounced characteristics to warrant its separate classification. The characteristics of the bullæ breaking, as they do, quickly and even before they have fully developed, together with the progressive course, taking on many of the features of an exfoliative dermatitis, and the usually fatal ending, are sufficient to establish the right of this affection to an independent place.

5. *Dermatitis herpetiformis*. The preceding varieties of bullous dermatitis are all, to my mind, clear cut and vivid: but the boundaries of dermatitis herpetiformis cannot, at present, be strictly drawn. Practically all agreed, however, that Duhring has made a distinct contribution by separating from the hotch-potch of so-called pemphigus, cases of vesicular and bullous eruption in which there is a marked tendency to grouping, and in this sense herpetiformity, of the lesions; which progress without impairment of the general health; which are characterized by recurrences in more or less isolated attacks, by the acuteness of the subjective symptoms, and by their multiformity, inasmuch as erythema, papules or pustules may be present alone or in combination with each other or the bullæ, in any of the attacks. These cases we are constantly meeting, and in many of them a well cut clinical picture is seen. Frequently, however, it is difficult to know where the boundaries of this group lie. In my own opinion, the recurrence of these lesions in separate attacks is their most characteristic feature; and without recurrence, I do not believe a positive diagnosis of dermatitis herpetiformis should be made. There must always, naturally be a first attack, and the proposition that this may be the only one is quite tenable. It cannot, however, be proved positively that we are dealing with this affection until it

has shown its tendency to repeat itself either in the same or in a different form. I have been much interested in the study of this affection in children, and have described at some length fifteen cases which I have seen. My conclusions from these fifteen cases were that in children the element of multiformity is often wholly lacking, and the disease tends to appear in a purely bullous and vesicular form; also that in the majority of cases, the subjective symptoms are either absent or very slightly marked. Vaccination seems to be, in certain cases, the exciting cause, and I have met with several cases in adults. In the children's cases, the parts about the nose, mouth, and eyes, the backs of the hands and wrists, the back of the ankles and the feet, and the genital regions were the places most prominently affected.

Taking the cardinal characteristics of the affection, in my opinion they should be mentioned in the following order. First, the recurrence of the disease; without this feature, it is impossible to exclude other dermatoses. Second, the herpetiformity of the eruption; its tendency to appear as groups of vesicles. Third, the general good health of the patient. Lastly, multiformity and subjective sensations of pain and itching are frequently present, but are by no means necessary features.

The cases described by Unna as *hydra puerorum* differ decidedly from the cases of *dermatitis herpetiformis* in children that I have met with and described. The position that should be accorded to these cases is not quite clear to me; but if they are to be regarded as belonging in the class of *dermatitis herpetiformis*, they are certainly entitled to a separate place. Not improbably it may be found in the future that they do not belong in this class at all.

6. There remains a class of cases characterized by the more or less constant recurrence of pure bullæ, without signs of multiformity, and also by a certain symmetry of the lesions. The lesions are frequently found on the mucous membranes. The affection is accompanied by very few subjective symptoms, and pursues a chronic and usually fatal course. This is the form described as *chronic pemphigus* by Besnier and Brocq, and is the prototype of the German *pemphigus*. This form is comparatively rare, and its existence is questioned by some authorities. While its etiology is as obscure as that of most of the members of the group of bullous dermatoses, the clinical characters warrant, in my opinion, its separation as a distinct form of disease.

BULLOUS AFFECTIONS AND THEIR CLASSIFICATION.

By EDWARD BENNET BRONSON. M.D.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

AN objection often made to the pursuit of a specialty in medicine, is that it tends to curtail one's view. It lacks perspective. It is implied that the specialist regards those changes that take place in the particular part of the economy that comes within his purview, as paramount, and as though independent of general pathological conditions. In a general way, this is true. Perhaps it is especially true of the dermatologist—and for the reason that the local changes in skin diseases are at the same time so obvious, so striking, and so multifarious that they invite and demand attention that is liable to become too exclusive.

But though we recognize the fact that the local disease is more or less subject to morbid conditions affecting the economy at large, this fact also remains, namely, that before we can extend our view to the wider field, we have first to discriminate and arrange in order, the local manifestations. The identification of these more obvious changes is the first step towards classification and affords the first clue to a complete diagnosis.

The most rational, the most enlightening classification is an etiological one. But there are local causative factors to be taken into account, as well as those that are general and remote. They are the determining factors in the etiology and, in the classification of skin diseases, of prime significance. In some of these diseases, the etiology cannot be traced any further. They are essentially idiopathic diseases. And in every skin disease, whether idiopathic or symptomatic, whether a mere anomaly of growth or an inflammatory affection, there is a determining cause that inheres in the local pathology.

Even when the cutaneous eruption is the consequence of pathological conditions more or less remote from the skin, between such conditions and the terminal effect—the local lesion or efflorescence—the determining cause must always intervene. Every type of skin disease has some such local cause, that for this particular type is constant and essential. The remote etiological factors are of vary-

ing character and are causes only potentially. They may or may not call into play the local determining factors. Erythema and inflammatory effusion that ordinarily cause diffuse, œdematous swelling do not produce a blister unless something particular transpires. The same is true of coccogenic diseases of the skin that commonly manifest themselves by the development of pustules. When the sepsis is unusually pronounced or the epidermis is easily disorganized, as is the case especially in young children or infants, instead of small collections of pus, great blebs form, and thus we have a bullous impetigo contagiosa. Similarly with bullæ these form as epiphenomena in the course of certain special types of cutaneous inflammation, such as erythema multiforme, lichen planus, and sometimes in eczema too, it is an incident of the disease that is due not merely to the intensity of the inflammation nor to the amount of serous effusion, but to a special process or change in the rete, whereby the cohesion of the cells is weakened and the effusion, instead of diffusing itself through the lymph spaces in the rete and in the tissues contiguous to the blood vessels, finds its readiest escape by bursting asunder weakened cell connections, and crowding back the surrounding cells, forms a circumscribed body of fluid—a lacuna—in the epidermis.

The change in the rete which permits this process, is known as *acantholysis*. It varies in degree in different cases: less in the bullæ of zoster, where a certain resistance is evidenced in the presence of a few resisting bands or trabeculæ giving rise to blebs that are multi-locular; greater in impetigo bullosa and pemphigus; while most marked of all in pemphigus foliaceus where the least *vis a tergo* caused by the serous effusion suffices to loosen the cohesion of the cells, and the walls of the resulting blebs, instead of being rounded and tense, are flat, flabby and weak, rarely remaining intact for any appreciable length of time.

While acantholysis is a condition precedent to almost all bullous diseases (all in fact except the purely obstructive forms to be referred to later on), and becomes an incidental factor in many affections of the skin, rarely, if ever, does it occur as an entirely independent form of disease. It comes nearest to it perhaps in the congenital and usually inherited disease known as *epidermolysis bullosa*. Moreover when the bullous eruption is the consequence of some trouble interior to the skin, very rarely is it a symptom that can be regarded as pathognomonic of the internal disease. There may, however, be something in the mode of occurrence of the bullæ, in their form, arrangement or distribution that is sufficiently characteristic to be considered

distinctive, as, for instance, in the eruption of zoster, and possibly in that of pemphigus. The term *bullous disease* would seem, therefore, to imply something too much. Affections that ordinarily occur only incidentally in the course of certain definite diseases, have but a weak title to the rank of a separate class. The things in bullous affections that are most suitable to classification are the conditions, the *etiological* conditions, more particularly, under which bullæ occur.

From this point of view a fundamental distinction is to be made between bullæ or bullous affections that have a dynamic or mechanical cause and those due to a preliminary deterioration of vitality, in the prickle cell layer of the epidermis. The first constitute the *obstructive*, the latter the *acantholytic* forms. In the former the cause is an obstruction, either in the sweat follicles or lymphatic channels, causing, by simple mechanical force, an accumulation of fluid in the epidermis. This gives rise to such affections as *sudamina*, *dysidrosis*, and *lymphangioma circumscriptum*. To the latter, *i. e.*, those in which there is preliminary acantholysis, belong by far the greater number of bullous affections.

As already intimated, acantholysis is rarely an idiopathic condition, but a secondary effect of some injurious influence acting upon the trophic nerves of the epidermis. The source of the injury that gives rise to acantholysis may be:

1. Extracutaneous: From *traumatism*, from *extreme change of temperature*, or from the action on the skin of various *acid* or *venenous substances*, such as cantharides, different varieties of rhus and the like.

2. Intracutaneous: As an incidental effect of a large variety of cutaneous diseases, such as erythema multiforme, erysipelas, urticaria, lichen planus, syphilis (especially of infants), and possibly many others.

Also as the result of local infection, more especially with staphylococci and streptococci, which penetrating to the rete from without, grow in the skin with the evolution of injurious toxins. Thence arise the bullous form of impetigo contagiosa and the infectious forms of so-called pemphigus.

3. Infracutaneous: That is, the injurious influence proceeds from some disorder interior to the skin. It is by no means impossible that in some instances acantholysis is an effect of the direct action of toxic materials deposited in the skin from the blood as in cases of septicæmia or of drug poisoning. In most cases, however, we must assume a neuropathic origin. For whether the internal cause be a

definite form of nerve disease, a neuritis, for example, or some other and more general disorder of function or nutrition, the transmission, or determination or reflexion to the skin must be a nervous effect. When the manifestation of this effect has a very markedly bullous character, it would seem to imply a transmission that is especially direct, similar to that which takes place in zoster. But in most eruptions due to nerve disturbances—angioneuroses or angiotrophoneuroses, as they are called, there is no such uniformity in the cutaneous manifestation as that observed in zoster or herpes. (Even in these latter affections there is a preliminary erythema.)

Nevertheless, there are certain characters that mark the class of eruptions we are considering, by means of which they become more or less recognizable. But the presence of bullæ is by no means the most essential of these characters. More often than not, this is only a secondary and wholly accidental character. This is well illustrated in the interesting group of affections first identified and described by Duhring under the name (well chosen in the writer's judgment) of *dermatitis herpetiformis*.

This multiform exanthem has been the subject of no little controversy as to its true rank among dermatoses as well as to its proper designation. This has arisen in large part because of an incorrect or inadequate appreciation of the force and significance in this connection of the adjective "herpetiform." With many it would seem the idea of vesiculation or vesication had been the one most prominently suggested; whereas it is the general form of the lesions, their peculiar mode of occurrence, their grouping and arrangement more particularly, that constitute their herpetiformity. This seems to have been Duhring's idea, and is the idea that has come now to prevail.

Herpetiformity in this sense is not by any means confined to what are commonly known as herpetiform affections. We see it in the eruptions of the general infectious diseases, of syphilis, of leprosy, of the acute exanthemata; it is marked in the lichens, and is in evidence, often, in eczemas of systemic origin, and especially those of markedly nervous type. But in these diseases, because the eruptions have characters that are much more important and constant, the herpetiformity attracts minor attention. In *dermatitis herpetiformis* on the other hand, it is the factor paramount.

When among the multifarious efflorescences of *dermatitis herpetiformis* bullæ appear, they may be attributed to any one of the three sources of injurious influence designated above as "extracutaneous," "intracutaneous," and "infracutaneous," or all of these

influences may act simultaneously. Thus, the traumatic effect of rubbing and scratching may have much to do with the development of vesication. Again, the intensity or special character of the inflammation in the exanthem preceding the bullæ may in greater or less measure account for the latter. Finally, it is also possible that the central disorder may be transmitted to the skin so directly and with such energy as to produce acantholysis and bullæ in much the same way as they are produced in herpes. This is more apt to be the case when a bullous eruption is the predominating one in the type known as *dermatitis herpetiformis bullosa*. This type comes very near what has been generally regarded as an entirely distinct disease—pemphigus, true pemphigus, the pemphigus chronicus of Hebra. Wherein lies the distinction?

Much that formerly was looked upon as belonging to pemphigus has been since eliminated and attached to other forms of disease. Thus, those inflammatory forms that used to be called pemphigus pruriginosus are now classed with dermatitis herpetiformis. Other bullous affections that were once thought to be pemphigus are now known to be infectious diseases of coccogenic origin and closely allied to, if not identical with, the bullous form of *impetigo contagiosa*.

There remains, however, a residuum of bullous affections that are recognizable clinically and constitute the insignia of some definite internal disease. To this as a supposed nosological entity the name pemphigus still adheres. It is not an infectious disease. The freshly formed bullæ have been shown repeatedly to be absolutely sterile and the disease is void of contagiousness. The bullæ are attended with little or no signs of inflammation, so that by some authorities they have been classed with anomalies of growth. Though often there are indications of herpetiformity, this is far less pronounced than in dermatitis herpetiformis. But the chief distinction between pemphigus and the latter disease lies in the fact that in pemphigus the evidence points to a far more profound derangement of the cutaneous vitality as well as to some much graver internal disorder.

Just what the internal pathology of pemphigus is, we know no more than we do of the constitutional conditions that give rise to the exanthem of dermatitis herpetiformis. Not even do we know in either case that the cutaneous manifestations always imply one and the same disease. But whatever the diseases that produce them may be, it is clear that the damage to the vitality of the skin is much severer in what is known as pemphigus than it is in any of those forms recog-

nized as dermatitis herpetiformis. Yet in the local effect the difference between the two is apparently one of degree rather than of nature. Acantholysis is the conditioning factor in both, and though, when bullæ arise, the immediate provocation required in pemphigus may be less, the direct excitants are much the same. It is not at all improbable that in many instances a slight external injury, chafing or scratching, perhaps, is the exciting cause of the bullous effect in pemphigus, as it is in dermatitis herpetiformis bullosa. Indeed, a condition may be acquired analogous to what obtains in congenital epidermolysis bullosa. Still more would this surmise apply to the so-called *pemphigus hystericus*, where, as often happens, but a single bleb occurs. Here there is no cachexia and no such grave disease as in true pemphigus. Yet there is a profound functional derangement of the nervous system which is capable of effecting, and often does effect, trophic changes in the skin, and would easily account for a condition of acantholysis. But the mystery of a single lesion can with difficulty be explained in any other way than by referring it to a local, exciting cause, to some slight traumatism insignificant in itself and usually overlooked.

In conclusion, from the above considerations it would seem that:

The term bullous diseases should be taken in a very restricted sense, inasmuch as a bullous eruption is nearly always the concomitant of some other disease.

Of bullous affections there are two fundamental divisions:

(a) Obstructive forms, in which bullæ occur as the result of obstruction in the sweat follicles or in the lymphatic channels, with mechanical distention at the point of escape in the epidermis.

(b) Acantholytic forms, in which a vital impairment of the cohesion between the prickle cells enables a relatively slight effusion of serum to force its way between the cells and produce a lacuna.

Acantholysis may be a consequence either

(1) Of external injury;

(2) Of absorption into the epidermis of venenous or infectious matter;

(3) Of some other cutaneous affection which may be either symptomatic or idiopathic and of which the bullous affection is only an incident;

(4) Finally, of some interior disease transmitting an injurious influence directly to the prickle cell layer of the skin, in which case the resulting bullous eruption may be a pathognomonic sign either of a localized nerve lesion or of some more general disease reflected

to the skin through the nervous system. But even in such cases the immediate cause of the bullous effect is very often some more or less slight, and commonly overlooked, local, external injury.

DISCUSSION OF THE PAPERS BY DR. JOHN T. BOWEN AND DR. E. B. BRONSON.

DR. JAMES C. JOHNSTON said that after listening to the papers of Drs. Bronson and Bowen, he thought the titles should have read "The Elimination of Bullous Diseases," rather than their classification. It was a good idea, the speaker thought, to eliminate the class of cases in which the eruption was accidental or infectious, or more rarely cystic, which narrowed the class practically to four clinical entities, namely, 1, epidermolysis bullosa; 2, pemphigus; 3, dermatitis herpetiformis; 4, pompholyx. These four were inter-related, and it was impossible to draw any distinct line between them. There was nothing in the clinical course and nothing in the pathology to justify their complete separation on account of the intermediate cases. If it is recognized that their nature is the same, these recognized types serve a useful purpose as a basis for clinical classification.

The histology of these bullæ had often been investigated at great length. The cavities were almost all either intra-epidermal, or else the whole epidermis was raised to make a cover for the bulla. As the result of careful investigation, he had become convinced that acantholysis referred to by Dr. Bronson, did not begin with the formation of the bullous lesion; it was, however, an after-effect; a purely toxic phenomenon, the cells and their prickles going to pieces later under the action of the cytolytic serum.

The mechanism of bullous formation was a different thing from its histology. It was not the toxicity but the amount of serum and the short period of time taken for its effusion that was primarily responsible for the character of the lesion. The fluid at first was not taken up by the prickle cells as in eczema; the epidermis was ripped apart at the point of least resistance. The serum was poured out of the capillary plexus in the papillary body and literally shot into the epidermis by contraction of the arrector muscles. Their irritant was probably found in the substances contained in the exudate.

Personally, the speaker said, he regarded all the members of this group as of autotoxic origin. We had been content for a long time in this connection, with the word trophoncrosis in spite of the fact that no trophic nerves had been demonstrated except those supplied to voluntary muscles and that no changes had been satisfactorily demonstrated in the cutaneous nerves. There was no reason to suppose that degenerations

might not occur as a result of the systemic poisoning, but it remained to be demonstrated. Kaposi's finding of posterior column degeneration in pemphigus had not been confirmed but was quite in line with the toxic theory, an analogy being found in chronic alcoholism. Granting the trophoneurosis, from what did it arise? In this group we were dealing with bullous lesions generalized over the skin and in the more serious forms, the mucous membranes. The cases could be graded by insensible stages from the lightest pompholyx to pemphigus foliaceus. The attacks were preceded by prodromal symptoms, chill, fever, headache, scanty, high-colored urine; at full development they are accompanied by systemic depression, eosinophilia, which can hardly be regarded as anything but specific intoxication of the blood-forming organs and parenchymatous degenerations found at autopsy. A feature of no little significance was the metabolic pigmentation following pemphigus and dermatitis herpetiformis, almost always toxic in origin. The really serious forms resulted fatally even when the skin process was quiescent. In short, the skin furnished only its quota to the evidence in favor of systemic poisoning.

Coming to the point of naming or isolating the particular toxic substance that we had to deal with in this form of dermatosis, Dr. Johnston said that we were confronted by a very serious problem. The speaker referred to the important rôle in the human economy played by the internal secretions of the thyroid, the parathyroid, the supra-renals, etc., whose specific effects we had learned to recognize, and to the work that was being done at the laboratory of the Cornell University in connection with the toxæmia of pregnancy. He then took up the changes that were constantly going on in the alimentary canal, and there, he thought, we had to look for most of the toxins that played a rôle in lesions of the skin. They might possibly be traceable to a failure of the process of digestion in the gastro-intestinal tract, or, to a failure of elaboration in the absorption of the intestinal products, which was, probably, chiefly carried on in the liver; or, thirdly, to a failure of elimination by the kidneys and skin. It was difficult to learn which of these three factors was at fault. Almost subconsciously, the diet of these patients was regulated by the physician, especially in view of the fact that almost all Americans ate too much, particularly too much meat. This fact of the regulation of the diet was directly in accord with the speaker's line of thought. In some cases, this method of treatment was directly indicated by the presence of certain gastro-intestinal symptoms as in urticaria. In others, there were indications of a failure of elimination, especially by the kidneys, *e.g.*, erythema multiforme. It was not always necessary, in such cases to find albumin, or to have an increased or diminished quantity of urine, but the failure of elimination would be indicated by the diminished quantity of urea.

Dr. Johnston said the other factor to which he had referred,

namely, the failure of elaboration in the absorption of the intestinal products, we could arrive at with a fair degree of accuracy by a careful estimation of the nitrogen constituents of the urine. For example, it had been demonstrated that in certain cases of dermatitis herpetiformis there was a distinct disturbance in the nitrogenous elements of the urine, the percentage of uric acid being increased, and in two instances of recurrent dermatitis herpetiformis, the last attack was cut short in its mid-career by the administration of anti-gouty remedies.

In conclusion, Dr. Johnston stated that he was almost on the point of saying that the clinical type of the skin affection, at least as regards its class, was determined by the nature of the toxic agent that was present. The effect of this toxin was exerted perhaps through vasomotor nerves indirectly on the vessels from which the fluid was poured out.

DR. SAMUEL SHERWELL said that in a case of pemphigus foliaceus reported by him in the *Archives of Dermatology* in January, 1877, the patient had had three distinct attacks, the last one in 1889. In their termination, these attacks resembled a pityriasis rubra in their scaling and atrophic features. The patient was alive and in good health at the present time.

In connection with this case, Dr. Sherwell showed a photograph of the patient.

DR. LOUIS A. DUHRING said he spoke with some reluctance, for the reason that the topic under discussion was so broad that it was difficult to decide how to approach it. As the readers of the papers stated, there were many diseases that gave rise to the formation of vesicles and blebs; in fact, some bullous forms of diseases might be enumerated which were not touched upon by the writers. For example, bullæ were observed in connection with certain phases of leprosy. To make a complete classification of all diseases of the skin in which blebs might appear would prove a task.

The speaker said that while he was well aware that there were many aberrant forms of pemphigus, he thought that condition, as portrayed by the older writers, particularly Hebra, was pretty clearly defined, and should be retained. He would also like to hold on to dermatitis herpetiformis bullosa as a distinct clinical entity. This was one of the varieties of a pretty clearly defined affection, which should be distinguished from pemphigus. In dermatitis herpetiformis bullosa there was usually a certain amount of distinct inflammatory reaction, which symptom differentiated it from other diseases with which it might otherwise be confounded. With true pemphigus there was always systemic depression, more or less marked, but this was absent in dermatitis herpetiformis, except in grave cases. In true pemphigus, pigmentation was seldom marked.

Dr. Duhring said that the best we could do at the present time in dealing with this subject was to hold fast to our clinical interpretations of the disease, entirely irrespective of the etiological factors; otherwise,

he did not see how we could make progress in the study of the subject. The features of herpetic lesions in general were of interest. Grouping was not the only feature of the herpetic forms of disease. Two distinct clinical forms existed: one the grouped form, as seen typically in herpes zoster; the other of the creeping, or peripherally extending form, as this mode of extension was seen in herpes circinata.

DR. M. B. HARTZELL said there was a very decided tendency to do away with pemphigus as a distinct clinical entity, and a great many cases which were formerly called pemphigus were now included under dermatitis herpetiformis. In referring to the type of bullous eruption in which the lesions were in the shape of rings, spreading at the margin, and which were usually placed in the category of dermatitis herpetiformis, Dr. Hartzell said he had seen such cases in which the lesions were always bullous from the onset to the termination of many recurrent attacks. Frequently, the mucous membranes were involved, and in some instances a fatal issue occurred. The mere fact that the bullæ showed a certain arrangement did not indicate that the case was one of dermatitis herpetiformis rather than pemphigus, and he regarded these as belonging to the latter disease.

DR. A. RAVOGLI said that in classifying the bullous eruptions, he thought it essential, fundamentally, to establish the fact whether the eruption was an essential phenomenon or a simple epiphenomenon. As an epiphenomenon it occurred in the course of many affections, but in true pemphigus, the bulla was the essential lesion, unaccompanied by any inflammatory process or inflammatory reaction. In dermatitis herpetiformis, which the speaker said he had always regarded as distinct from pemphigus, the grouping of the lesions differentiated that affection from pemphigus, and the bullæ are only an epiphenomenon.

DR. J. NEVINS HYDE said he was exceedingly gratified that one of the writers had made a marked distinction between dermatitis herpetiformis and hydroa puerorum. A number of cases of hydroa puerorum had recently come under his observation, and one of the interesting features was that the lesions had occurred on the cornea when the patient was exposed to sunlight, even during the winter season, at times when the light was rather brilliant.

Dr. Hyde said he believed he was the first to present a paper on the subject of pemphigus vegetans which was based upon an observation made in this country. The patient was a resident of Milwaukee, and the diagnosis in that case was confirmed by Dr. Duhring. The speaker emphasized the fact that in his experience, pemphigus vegetans was a disease of extreme rarity, and one exhibiting unique features, and he had at times regretted that the first word of the title was "pemphigus" rather than "vegetans," as the vegetating feature of the disease was more conspicuous than the pemphigoid. In the only atypical case that had fallen under his observation, the disease was limited to the scalp. The speaker said that his associates in dermatology, both in Chicago and

elsewhere, had on several occasions called to his attention cases in which they had made the diagnosis of pemphigus vegetans, and while he had not been in a position to dispute it, the characteristic features of the disease had been lacking.

Dr. Hyde said that in the papers and in the discussion that followed, no reference had been made to herpes gestationis, of which he had observed a series of interesting cases. He regarded it as an epiphenomenon of pregnancy. In some of the cases, the lesions recurred after delivery, but more commonly they disappeared when delivery was effected.

Dr. J. F. SCHAMBERG said it was essential to preserve a clear, clinical concept of these bullous eruptions, so that our perception of them might not be obscured, but it was also important to investigate the etiological factors. He considered it erroneous to eliminate some of the bullous diseases which were obviously of external and infectious origin from the general group to which they were so closely allied. For example, the cases reported two or three years ago by Drs. Bowen and Howe, in which bullous lesions followed vaccination. In these cases, the eruption was doubtless due to an infectious agent introduced either at the time of vaccination, or subsequently into the vaccination wound, and which acted in the same manner, pathologically, as the endogenous toxins referred to by Dr. Johnston. The only difference between those cases and a classical case of dermatitis herpetiformis was that in one the poison was from without, while in the other there were doubtless metabolic autotoxins, which were formed from time to time, and which were apparently responsible for the recurrence and chronicity of the skin lesions.

Dr. Schamberg said that while on the one hand it would lead to chaos if we disregarded the established clinical conception of bullous eruptions, we should not, on the other hand, fail to carefully investigate them from an etiological viewpoint, for such studies not only clarify our comprehension of their relationship, but are essential to therapeutic progress.

Dr. CHARLES W. ALLEN said that many of the points upon which he had intended to speak had already been covered by those who preceded him. One type of bullous eruption that had not been mentioned, however, was that occurring from the use of drugs, especially headache powders, which were now so extensively used by the laity. The speaker said he had seen groups of bullous lesions on the mucous membranes and about the genitals from the too free use of certain drugs.

In referring to Dr. Johnston's statement regarding the value of anti-gouty remedies in dermatitis herpetiformis, Dr. Allen said he had found salophen very beneficial in that class of cases.

The speaker said he agreed with Dr. Duhring that we should retain the old term of pemphigus, just as we did lupus and acne, and in the classification of the bullous eruptions, both the clinical and the etiological features should be considered. Some so-called cases of acute pemphigus he regarded as the bullous form of impetigo contagiosa.

DR. H. W. STELWAGON thought it would be very unwise at the present time to attempt to make any new classification of the bullous eruptions, and he would hold on to the old term pemphigus. He would not do away with the term acute pemphigus, and thought it unnecessary to change our conception of acute pemphigus in children. No doubt there were many such cases included that properly belonged to impetigo contagiosa. He regarded the name of pemphigus as a good one, and had always rather regretted that Dr. Duhring, instead of adopting the name dermatitis herpetiformis, had not styled the affection pemphigus herpetiformis.

Dr. Stelwagon said he agreed with Dr. Johnston in regard to the importance of the gastro-intestinal tract as a great manufactory of toxins. An interesting fact to which Weidenfeld had called attention was that during the acute exacerbations of these bullous diseases, even very slight friction or pressure of the skin with the nail or finger would evoke a bleb in most instances, whereas during the stage of subsidence such action failed to evoke any exudation, indicating that during the acute stage either the resistance of the skin was lessened or the activity or quantity of the toxins was greater.

The speaker said he had seen attacks of dermatitis herpetiformis cut short by the use of the salines, and he had come to place more reliance upon them than upon the anti-rheumatic remedies.

DR. WILLIAM A. PUSEY said he was much interested in Dr. Johnston's enticing theory, and he did not wish to be understood as trying to minimize the possible importance of the gastro-intestinal tract as a toxin-producing area. In Dr. Johnston's theory, however, so many of the bullous dermatoses were included, that it proved too much. The speaker thought it was as illogical to attribute the condition of epidermolysis to a toxin as it would be to attempt to trace a nævus to such a cause. While dermatitis herpetiformis and some other conditions were doubtless of toxic origin, he did not think that theory could be applied to the entire group of bullous eruptions. He would also protest against substituting the chemico-pathological idea of a toxin for the old, well-tried and equally convenient and indefinite tropho-neurotic theory.

Dr. Pusey said that in a case of dermatitis herpetiformis that came under his observation last winter, he was unable to produce any reaction of the skin even upon very vigorous rubbing. This, so far as he was concerned, was a unique experience.

DR. H. C. BAUM of Syracuse, N. Y., said he noticed that the title of one of the papers on the programme, by Dr. Engman, was "A Note upon the Presence of Indican in the Urine of those Affected with Dermatitis Herpetiformis." Dr. Baum said that in a few cases of dermatitis herpetiformis that he had seen recently, indican was always present in the urine during the exacerbations and the eruptive stage, and that as soon as he had been able to correct the error of metabolism and free the urine from indican, there was a prompt involution in the skin mani-

festations. This was not only shown in one patient, but in different patients during different attacks, and he had come to look upon the phenomena as more than a mere coincidence.

In speaking of the possible toxic origin of many skin eruptions, Dr. Baum said that while we were not yet in a position to either prove or exclude such a connection, he thought we were advancing rapidly along those lines. Personally, the speaker said he was firmly convinced of the toxic origin of a large proportion of skin diseases.

DR. CHARLES J. WHITE said that in one of the numerous cases of dermatitis herpetiformis that had been under observation in the Massachusetts General Hospital, there was always a marked leucocytosis, which preceded the skin manifestation by about twenty-four hours. This was shown by repeated blood examinations, and was so constant that the recurrence of the eruption could be foretold from the blood count. There was first the marked leucocytosis, then the fever, and finally the eruption.

DR. STELWAGON, in reply to a question by Dr. Bowen, said he had seen what were apparently unmistakable examples of acute pemphigus clinically, which subsequently proved to be cases of impetigo contagiosa.

DR. JAMES C. JOHNSTON said that in his previous remarks he had omitted to speak of the fact that the changes in the nitrogenous constituents of the urine could be noted in from 24 to 36 hours before the outbreak of the eruption.

In reply to Dr. Bronson, the speaker said that the action of certain toxins was specific enough although exerted upon only given groups of capillary vessels. For example, after the introduction of snake poison, the exudate from the vessels began locally in a few minutes, and within a few hours involved the entire body. Another well recognized example was an urticaria, which was unquestionably toxic, and cases were on record where the bursting of an echinococcus cyst in the abdominal cavity had given rise to urticarial wheals.

DR. BRONSON, in closing, said it appeared from the discussion that most of the members of the Association agreed with what he had tried to bring out in his paper: namely, that bullous eruptions, as such, were not proper subjects for classification. The great majority of them were secondary manifestations, and for that reason he had changed the title of his paper from "The Classification of Bullous Diseases," to "Bullous Affections and Their Classification." A distinction had been made between an affection and a disease. To classify the various bullous eruptions on purely clinical grounds would lead us astray, ignoring as it would the conditions giving rise to bullæ. It was necessary to go a little deeper than this to find out where the various bullous eruptions belonged. It was true that certain bullous lesions were characteristic in appearance and indicated the disease at once, but this was rarely the case.

In order to properly classify the bullous eruptions, it was necessary to ascertain their etiology, notwithstanding one of the speakers had been disposed to belittle the importance of that factor. This was illustrated

in the distinction that was made between bullæ that were infectious and those due entirely to internal causes, as in dermatitis herpetiformis or in pemphigus. Dr. Stelwagon spoke of extending the scope of the term pemphigus, and he would substitute for dermatitis herpetiformis the name pemphigus herpetiformis. Such a term, Dr. Bronson said, would be misleading because bullæ were not essential in dermatitis herpetiformis; in fact, they were exceptional and accidental, and did not form part of the true disease.

In reply to Dr. Johnston, the speaker said he thought that fundamentally there were only two kinds of bullæ, one due to violent or mere mechanical distention in the epidermis and the other to preliminary weakening of the prickle-cell connections. The speaker could not imagine any form of hyperæmia that would give rise to such a sudden and violent rush of fluid into the epidermis as to cause bullæ. In fact, they might occur when the hyperæmia was comparatively trifling as for example in pemphigus. The fact that damage to the peripheral nerves had been found in the latter disease was collateral evidence of the trophic change independent of hyperæmia.

DR. BOWEN, in closing, said the discussion had shown that the subject proposed, *i.e.*, the classification of the bullous dermatoses could be interpreted pretty broadly. In his own paper, which was a very brief one, he had confined himself strictly to enumerating the various classes which he considered could at present be separated with more or less propriety, as distinct types of bullous disease.

WARTY GROWTHS, CALLOSITIES AND HYPERIDROSIS AND THEIR RELATION TO MALPOSITIONS OF THE FEET.

By W. A. HARDAWAY, M.D., St. Louis,
and

NATHANIEL ALLISON, M.D., St. Louis.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

Prefatory Note by Dr. Hardaway.

MY attention has been directed for some years to the connection existing between malpositions of the feet and certain disorders of those members, namely, papillomata, callus and hyperidrosis. As will be seen from the brief notes of cases that follow, the malpositions mainly concerned are, according to Dr. Allison, to whom most of the cases have been referred for orthopedic treatment, flat foot and Morton's foot.

Warty Growths. In a rather hurried search through the literature I have found nothing either in the dermatological or orthopedic text-books bearing on this subject. In an interesting paper by D. W. Montgomery¹ in which he quotes Dubreuilh's observations, no mention is made of this possible cause. He speaks of traumatism, blows, heavy marching, and inequalities of the sock or sole of the boot as among the conditions producing papillomata. In one place he states that pain may be present for a long time before the lesion is noticed. As will be seen presently pain is a very significant symptom in certain malpositions. Again he quotes Dubreuilh as declaring that he has never seen a coincidence of warts on the soles and palms, which, to my mind, removes papillomata of the soles from any relationship to the common warty growths seen on the hands. In fact, I am inclined to believe that the so-called papilloma of the sole is sometimes preceded by a callus; but by no means in all cases. I have a number of times seen warty growths on the sole that were rebellious to treatment until the foot had been put in proper shape by orthopedic appliances.

Hyperidrosis and Callosities. Orthopedic surgeons, as would be expected, have given more attention to this question. The association that exists between weak foot, flat-foot, anterior metatarsalgia (Morton's foot) and profusely sweating feet has been often pointed out in their literature. In most of the orthopedic text-books mention is made of these symptoms as accompanying or preceding the collapse of the arches of the foot. And the same may be said of callus.

For example, Goldthwaite² in an article on Morton's foot gives the two following symptoms as present in this condition, viz., 1. Irregular attacks of pain referred to the anterior part of the foot, and 2. a painful callus about the ball of the foot. This callus may vary considerably in size. It is formed directly under the heads of the metatarsal bones, and is a result of undue pressure at this point, and at times is so painful that locomotion is difficult. H. von Lesser³ in an extremely valuable paper claims that sweating feet precede flat-foot. If space permitted the various text-books on orthopedic surgery might be cited in this connection.

Dermatological writers so far as I can discover do not even mention malposition of the foot as one of the causes of callus of the soles. P. S. Abraham in Allbutt's "System of Medicine" (p. 690)

¹ *Jour. Am. Med. Ass'n.*, July 11, 1903.

² "Trans. Am. Orthopedic Ass'n.," vol. vii., p. 88.

³ *Deutsche Med. Wochensch.* 1893, p. 1070, No. 44.

states that tylosis is sometimes accompanied (he should have said preceded) by hyperidrosis, and that this condition is not uncommon in shop assistants who do much standing. I believe that in many cases at least a further examination would have shown some anatomical change in the foot.

In the matter of hyperidrosis, Crocker says that bromidrosis of the feet is often found in servants and others who do much standing, but he makes no mention of the anatomical condition of the feet, although it is in just such persons that these malpositions are most apt to occur. Stelwagon quotes von Lesser but makes no further comment.

On the other hand, Morris, Norman Walker and Pringle (in Allbutt's System) all note the coexistence of flat feet and hyperidrosis.

It is well known that callus and warty growths are not uncommon concomitants of hyperidrosis, and in many instances, at least, the hyperidrosis is the first link in the vicious circle set up by the relaxed condition of the foot. While this statement is by no means universally true, it is believed that this view of the case has not heretofore received proper attention.

CASES

CASE 1. M. L. G., woman, aged thirty-six, married, three children. For the past year has had pain in the anterior part of both feet, severe and paroxysmal in character. Has found it necessary at times to remove her shoe and rest the ball of the foot. Has noticed callus forming under the ball of each foot to which she attributes the pain. Examination shows a callus about the size of a dime under the heads of the second and third metatarsal bones of each foot. This spot is tender to the touch. Tracing shows preservation of the longitudinal arch and the anterior arch obliterated.

CASE 2. E. F., woman, aged twenty-eight, single, a nurse. Right foot has been painful for a number of months. The pain occurs in paroxysms of severe character. Large callus under the heads of the second and third metatarsal bones. Anterior arch obliterated.

CASE 3. M. B., boy, aged fifteen, weight 180 pounds. Has taken on much weight and grown very rapidly during the last year. Complains constantly of his feet. They are cold, sweat profusely and are very painful. Pronation to a marked degree. Longitudinal and anterior arches obliterated. The skin on the plantar surface is macerated. The anterior part of the soles show a considerable number of distinct warty growths. There is no callus.

CASE 4. E. K., girl, aged fourteen. For several months has complained of pain in the ball of the left foot. Her mother has noticed that there is a callus forming here. This callus is tender and at times exquisitely painful. Examination shows callus the size of a dime under the second and third metatarsal heads. This area is tender to the touch. The anterior arch is obliterated.

CASE 5. E. B., nurse, aged twenty-three. For several years the right foot has been painful in its anterior part. Has noticed a callus forming under the ball of her foot for the last six months. This callus is tender to the touch and to it she attributes her symptoms.

CASE 6. G. B. H., woman, aged fifty-two. Has had pain in the anterior part of the left foot coming on in irregular paroxysms. She must at times remove her shoe on account of the severity of the pain. The feet perspire profusely and are cold and blue. A callus has formed under the ball of the left foot and is tender.

CASE 7. E. R. N., woman, aged fifty-four. For a number of years has been increasing in weight. Has been suffering for years with pain in the feet, spasmodic and radiating, beginning at the head of the fourth metatarsal. The left foot is worse than the right. Has a burning sensation and has to remove the shoe at times. Examination shows marked hallux valgus, head of the fourth metatarsal prominent, pressure causes severe pain, longitudinal arch normal, callus the size of a dime under the heads of the third and fourth metatarsal bones.

CASE 8. W. C. F., physician, aged forty. Complains of pain and tenderness in his feet. Pain located under the os calcis. Feet are cold, perspire profusely. This condition was noticed before he commenced to feel pain in the feet. Examination shows pronation and obliteration of the longitudinal and transverse arch.

CASE 9. C. P. L., woman, aged thirty-two, married. For nine months has had paroxysms of pain in the right foot, running from the second toe to the knee. This has been so extreme at times that she has had to take off her shoe in the street car and rub her foot to get relief. Has a callus the size of a dime under the heads of the second and third metatarsal bones. Longitudinal arch normal, transverse arch obliterated.

CASE 10. M. H., woman, aged fifty-eight. Has had pain and discomfort in her foot for a number of years. Feet perspire profusely, are cold and blue, also marked hallux valgus and painful bunions.

COMMENT BY DR. ALLISON

It will be seen that all the cases above reported present symptoms characteristic of weakened or collapsed arches of the foot in addition to skin changes, and that in each instance the skin change, whether a painful callosity or sweating of the feet, was the factor of prime

PLATE XII.—To Illustrate Dr. W. A. Hardaway's and Dr. Nathaniel Allison's
Article.



Characteristic Callosity, Associated with Morton's Foot.

importance to the patient's mind and the element for which he sought relief.

The method of treatment that I have used, and which in the above series of cases has afforded relief in each instance, has been the ordinary methods employed for the treatment of Morton's metatarsalgia or for weakened or collapsed longitudinal arch. The employment of steel plates as supports, I have found not to be suitable to every case. The method of support supplied has been a small convex felt pad placed under the anterior arch with its point of greatest convexity at or near the center of the callosity, or a celluloid or steel plate. In the treatment of the longitudinal arch, it was found that a slight modification of the sole of the shoe was sufficient in some cases to relieve the painful symptoms, whereas others have required a strong steel support. These various methods, coupled with exercise and massage, have afforded entire relief in the majority of cases.

POSTSCRIPT BY DR. HARDAWAY

It would be going too far to claim that all cases of warty growths, callosities and hyperidrosis of the feet are due to malpositions. As a result of close attention to the feet in persons suffering from these disorders, I know as a matter of fact, that there are various other causes at work in their production: and which will, accordingly, require such treatment as may be demanded by the individual case. I do believe, however, that the dermatologist will often be richly rewarded in his therapeutic efforts if he gives a just recognition to this possible factor. My own attention was first called to this subject some half dozen years ago by the case of a young woman who was suffering from a large and painful papilloma of the sole, which all the usual methods of treatment had failed to relieve. One day I noticed that she presented a marked degree of flat foot, and I determined to send her to an orthopedic surgeon. The effect of his mechanical appliances was soon apparent. Since that time I have made it a rule carefully to examine the feet, and I repeat that in a surprisingly large number of cases the labors of the dermatologist are much lightened by his coöperation with the orthopedic surgeon.

In conclusion, I wish to thank my colleague, Dr. Allison, for his collaboration; for without his practical help as a surgeon, and his wide acquaintance with the literature of orthopedic surgery, I should have been seriously inconvenienced.

SOCIETY TRANSACTIONS.

BOSTON DERMATOLOGICAL SOCIETY.

December Meeting.

Dr. CHARLES J. WHITE, in the Chair.

Case for Diagnosis. Presented by Dr. C. J. WHITE.

William C., æt. 12. Four years ago adenoids were removed from the throat. Two years ago the patient had acute articular rheumatism, followed by "heart disease" and chorea, which left him in a debilitated condition. In April, 1904, the boy was at the Massachusetts General Hospital, when the following notes were made: The patient seems nervous and twitches constantly. Marked choreic movements on the right side. Distinct lateral contraction of the chest walls and prominence of the sternum. Heart beats irregular; a soft blowing murmur at the apex not transmitted; apex in the fifth interspace in the nipple line; pulmonic second accentuated.

On December 19, the patient was brought to the skin department with the following history. Three to four months ago, he noticed a few lesions on his chest. These have gradually spread until the present time. Both the boy and his mother are uncertain whether the old lesions have ever disappeared, but quite sure that there have been periods of quiescence and of exacerbation and that after a hot bath the lesions have grown brighter in appearance. Pruritus has been absent. No medicines have been taken for over four months. The boy's health is steadily improving.

To-day inspection shows on the chest, abdomen and flanks, numerous circinate, gyrate and coalescent erythematous plaques varying in size from one to four inches in diameter. These lesions are rather suggestive of pityriasis rosea for the circular outlines are slightly raised, of a reddish hue and the centers sunken. On the other hand erythema multiforme is suggested for the many annular outlines with here and there suspicion of a central recrudescence of the process, strongly favors erythema annulare of the iris type. In fact, if one turns to plate 3 of Stelwagon's 1905 edition, a similar picture will be found, although the present case has fewer central lesions.

Before discussion it was remarked by those who had seen the eruption a few hours before, how much less pronounced the whole picture seemed.

Dr. HARDING was of the opinion that the affection was of urticarial character.

Dr. BURNS, who had seen the patient before, thought the configuration shown

first suggested erythema multiforme, but that the extended duration excluded that disease. The possibility of an erythematous stage of dermatitis herpetiformis was also tentatively mentioned. No definite opinion was expressed.

Dr. JAMES C. WHITE in consideration of the case gave first choice to erythema multiforme, but he thought that if the appearances came and went quickly he would favor rather some type of urticaria.

Dr. H. P. TOWLE was struck by the rapid change from the morning. He considered the case one of neurotic erythema.

Dr. BOWEN was inclined to doubt the mother's statement as to duration, and expressed but little doubt that the eruption was urticarial.

Dr. C. J. WHITE, concluding the discussion, hesitated to call the affection urticaria on account of the history of three months. The marked change from the morning considerably modified his opinion and he preferred to relegate the eruption to the class of persistent erythemata.

Case for Diagnosis. Presented by Dr. H. P. TOWLE.

Girl, aet. five. The eruption began on the back one year ago as a single, small, red spot. This enlarged peripherally, the center clearing as the border advanced. Similar spots appeared, one after another, on various parts of the trunk, arms, and legs. After about a month, the appearance of new lesions ceased and there have been none since. Regarding the lesions already out, the mother asserts that none have disappeared, but that they have all persisted unchanged except for a slow extension of their borders and a slight diminution of color late in the summer which later became as bright again as at first. The only subjective symptom has been very moderate itching. The general health has been good throughout. For two months various applications were used, but as the result has not been satisfactory to the parents, nothing has been done for the last ten months. November 21, 1905, the child was brought to the hospital. At this time she presented lesions varying in size from a three-cent-piece to the size of the palm, situated upon the back, shoulders, buttocks, arms, and legs. The lesions were annular and were in some places discrete, in others confluent. They were composed of bright red borders of about one-eighth to three-sixteenths of an inch in width which were slightly thickened, elevated, with sloping edges, made up of fine papillary projections many of which bore a small scale. These borders enclosed a center which was level with the surrounding skin, smooth, in some instances of a pale red color, in others nearly normal in color. Three examinations of scrapings from the borders of various lesions gave negative results. The patient was given an ointment of sulphur and carbolic acid.

Dr. HOWE, from the peculiarities of the lesions presented regarded the condition either tinea trichophytina or psoriasis. The gyrate configuration being rare in ringworm and common in psoriasis the latter affection seemed to him the more probable diagnosis.

Dr. HARDING felt little hesitation in diagnosing ringworm from the regular slightly scaling borders. In psoriasis he would expect to see a more elevated periphery.

Dr. BOWEN said he had seen the patient several times and clinically had thought the eruption *tinea trichophytina*. In spite of the negative examination he still adhered to that view and held that the negative examination did not necessarily exclude ringworm.

Dr. JAMES C. WHITE thought psoriasis most strongly suggested on appearance alone. To him the lesions seemed too uniform for ringworm and in that affection with so much activity he would have expected to see greater inflammatory reaction. Furthermore the disease process was too slow and chronic for ringworm. As regards psoriasis, he would have expected to see more scales in lesions of this contour and extent. The affection described as *erythema perstans* (Crocker) he thought might pertinently enter into consideration. Dr. White remarked that he had never seen a ringworm lesion so large.

Dr. C. J. WHITE drew attention to the fact that the affection had not responded to parasitocidal remedies. In his opinion the negative microscopic examination was decidedly against the presence of the trichophyton. It seemed to him fair to say that if after repeated examinations, especially on non-hairy parts, the spores could not be found, the affection was not ringworm.

Dr. BURNS thought the duration of the disease, the lack of subjective symptoms and negative microscopic examinations argued strongly against the existence of ringworm. The picture presented only remotely brought psoriasis to mind.

Dr. TOWLE was still inclined to the diagnosis of *tinea trichophytina* even though his repeated searches for the fungus were fruitless.

A Case of Lupus Vulgaris. Presented by Dr. BOWEN.

In this patient an extensive implication of the face with lupus vulgaris was shown. The subject of the disease, a male of forty-five years, said he had had the eruption six or seven years. Four years ago, in another city, he was told that his disease was epithelioma. The face was covered with brownish-red, circinate and gyrate lesions of considerable size with sharply defined borders for the greater part scale-covered. Infiltration of the skin extended palpably beyond the borders of configuration and was moderately soft in consistency. Numerous areas of atrophy and cicatrization were present, especially situated within the centers of the figures.

Microscopic examination of a bit of tissue excised, revealed a granulation tissue similar to that seen in lupus vulgaris, viz.: nests of epithelial, giant and small round cells. No tubercle bacilli were found in several sections examined.

Dr. JAMES C. WHITE remarked on the lack of ulceration and crusting present, agreeing, however, to the diagnosis of lupus vulgaris.

Dr. C. J. WHITE thought the regularity of the process highly suggested syphilis. The microscopic examination and protracted history, however, he regarded as probably conclusive for lupus.

Dr. Post did not seriously consider the possibility of syphilis.

Dr. BOWEN, in conclusion, remarked that he had no doubt of the diagnosis of lupus vulgaris, and said that the histological picture conformed to that of tuberculosis of the skin.

A Case of Erythrasma(?) Presented by Dr. BURNS.

Child. The duration of the affection was six weeks. In both groins were symmetrically arranged areas of light erythema extending

onto the thighs with sharply defined peripheries, somewhat elevated and slightly scaling. It could not be ascertained that any other member of the family or acquaintance had had a similar outbreak. An examination of scales removed from the surface, showed infrequent nests of small spore-like bodies which might be taken for the microsporon minutissimum. Unfortunately the material for further examination was accidentally lost.

Dr. BOWEN considered that the raised edges suggested ringworm. In erythrasma he would have expected to see the color more of a buff or brownish tinge and with rather less elevation of the edges and with less substance to the general surface of involvement.

Dr. POST, from the appearances, favored ringworm.

Dr. TOWLE thought the affection of a parasitic nature possibly erythrasma. From the clinical aspect alone he was not willing to make a positive diagnosis.

Dr. JAMES C. WHITE called attention to the affection classed as *eczema marginatum*, and remarked that all cases of this variety of eruption could not be called parasitic, as many cases got well without parasitocides. He would not make a diagnosis of ringworm without a microscopic examination. As to erythrasma he had never seen an undoubted case in this country.

Dr. C. J. WHITE expressed himself as feeling that ringworm of the body was a rare affection. He, too, said he had never seen erythrasma in this country although he did not exclude it in this case. Some of the scales he had seen and the nests of small sporelike bodies aforementioned he thought very suspicious of erythrasma. The proof, however, lay in further investigation.

F. S. BURNS, Secretary.

MANHATTAN DERMATOLOGICAL SOCIETY.

Forty-sixth Meeting. December 1, 1905.

Dr. E. L. COCKS, Chairman.

Chancre of the Lip and Penis. By Dr. M. B. PAROUNAGIAN.

L. W., age thirty-one. In the early part of October, 1905, the patient noticed a sore on the dorsum of penis; two weeks later another sore developed on the lower lip; the latter small and indurated, the former assumed the type of a Hunterian chancre. Four weeks later, typical roseola. Patient states he had intercourse six weeks before appearance of genital sore and again one week later. The reporter inclines to the belief that both sores are initial lesions, which tend to prove that in the early stage of incubation the system is not entirely immune to the syphilitic virus. Fournier terms this "Chancre à distance."

Dr. ABRAHAMSON expressed some doubt as to the syphilitic nature of the labial

Dr. GOTTHEIL regards diagnosis of reporter as correct; there were two inoculations at the same or almost the same time with different periods of primary incubation.

Multiple Muscular Gummata, with Bullous Onset. By Dr. W. S. GOTTHEIL.

Alice L., thirty-two. On October 9, 1905, a water blister appeared on left inner ankle, which subsequently broke, got black and spread. When admitted to City Hospital, October 31, this lesion was quite large, oval, ulcerating, and about two inches deep. Upon removal of superficial necrotic tissues, a large sloughing cavity was exposed, with foul odor, but scanty discharge. While under observation, two large blebs filled with serum appeared on right lower leg; edges inflamed, but lesion not painful. Within forty-eight hours serum absorbed, leaving large doughy depressions, covered with whitish, shrunken epidermis; upon removal of this, ulcerating cavities, 3×4 and $1\frac{1}{2} \times 2\frac{1}{2}$ inches respectively, were exposed; also several sinuses, extending in all directions, four to five inches, showing extensive involvement of the muscular tissues. These ulcerating cavities gradually increased in size, the largest attained dimensions of 6 by 4 inches. No pain, very little tenderness, no temperature or constitutional symptoms. Treatment: salicylate of mercury injections, 10 m. weekly and K. I. rapidly run up to 750 grains a day. Locally, bichloride sol. $\frac{1}{3000}$. Improvement immediate and rapid. Bullæ as the first superficial manifestation of deep gummata are unusual; some of them developed whilst under observation.

Psoriasis; Results of X-Ray Treatment. By Dr. A. C. GEYSER.

Male, age forty years; had psoriatic patch twenty-two years ago on right ankle; remained free from eruption until three months ago, when it broke out all over the lower extremities in small discrete patches. Was placed under the influence of the X-ray two weeks ago, to determine what results could be obtained by this agent alone without other local or internal treatment and to ascertain in what period of time a cure could be accomplished.

Dr. BLEIMAN said, patient's lesions are still dry and scaling. With the ointment treatment, he was of the opinion, better results could be obtained in two weeks. Without deprecating the value of the X-Ray, the ointment treatment, by comparison, was preferable.

Dr. GOTTHEIL was of the same opinion; local treatment and arsenic should clear up a psoriasis in a short time, and he prefers the older treatment decidedly.

Dr. COCKS stated he had seen a case clear up in four weeks under X-ray treatment. Relapses follow as often as with other methods of treatment. In one case in particular he saw a relapse within six weeks after X-ray exposures, and the new outbreak, after ointment treatment, did not relapse for four months.

Psoriasis; Restricted to the Palms. By Dr. W. S. GOTTHEIL.

Female, twenty-one years old, Syrian; married eight years; no children; no miscarriages. Two years ago the lips became "sore" and have so remained; during the past summer, a dry scaling eruption involved both hands. The lips show seborrheal scaling; the palms of both hands

are dry, covered with silvery scales; patches show sharp and distinct margins, the underlying skin being reddened and slightly tumified. Eruption to some extent on dorsum of fingers; center of palms clear; finger clefts not involved; other parts of the body free.

Dr. Pisko regards the lesions typical of psoriasis, both on the palms and lips. In labial seborrhœa the lesions would not be restricted to the vermilion border so sharply.

Dr. BOWMAN reported a case in which the psoriasis was limited to the palms, for a considerable time; subsequently a general typical eruption appeared.

Dr. OCHS had presented a similar case to the Society some time ago. A psoriasis invaded the palms only. One year later the eruption of psoriasis became general.

Dr. OBERNDORFER agrees in calling the lesions psoriatic.

Dr. PAROUNGIAN likewise recalls a case, limited to palms only, which as in the above mentioned cases, also developed a general psoriasis subsequently.

Dr. BLEIMAN said the eruption extended to the nail margins and was surprised not to find any involvement of the nails themselves.

Dr. GOTTHEIL said it was rare to see palmar psoriasis without other psoriatic lesions on the body. He expects the patient to develop a general psoriasis and possibly improvement of the nails, at some future date.

Tubercular Ulceration of the Tongue. Presented by Dr. E. L. Cocks.

J. G., male, forty-three; United States; plumber. Early last summer a small painful pimple formed on the dorsum of his tongue; other pimples developed alongside of the original lesion. About November 1, when first seen, these pimples commenced to break down. Suspecting a possible syphilis, the patient was examined thoroughly, but no other lesions were found. Patient denies venereal infection. One of the broken down nodules was scraped and the product examined for *spirochætæ pallida*; none were found, but the pathologist reports the finding of tubercle bacilli. A second, third, and fourth examination gave the same results. Examination of the chest shows patient to be tubercular; his sputum contains tubercle bacilli. The tongue has been treated daily with washings of peroxide of hydrogen, then dried, and pure ichthyol applied. Also a drying powder consisting of calomel and bismuth.

Dr. GOTTHEIL has seen very few cases of tubercular ulceration involving the tongue; they were not common. There were other lesions on the tongue besides the broken down ulcers which look like syphilitic lesions. The finding of no *spirochætæ* is not conclusive. They have not yet been found in tertiary lesions. He regards the lesion as gummatous.

Dr. A. FAXONI stated that the *spirochætæ pallida* had been found in a gumma by one observer.

Dr. OBERNDORFER said, in that case, if we accept the theory that the *spirochætæ* is the etiological factor in syphilis, then our former conclusions in reference to the non-infectiousness of gumma must be abandoned. To him the condition looked like an early tubercular ulcer.

Dr. Pisko would not make a diagnosis of tubercular ulcer from appearance alone; the finding of tubercle bacilli seemed conclusive, however. Without history and findings would suggest diagnosis of leucoplakia, with scar tissue.

Dr. ABRAHAM agrees with Dr. Gottheil. Lesion was intensely hyperæmic; tubercular ulcerations are more anæmic. He knew of patients with both tuberculosis and syphilis, whose tubercular lesions responded to antileptic treatment, which has led one observer (Dr. Pinaud of Paris) to treat tuberculosis cases in that way with very favorable results.

Dr. BLEIMAN has also known a case of tertiary syphilis in a tubercular patient; who did exceedingly well under antileptic treatment. Would not consider the case under discussion as tubercular without history. It is quite possible, however, that tubercle bacilli accidentally lodged in the crypts of the tongue, their original source being the patient's sputum and not the ulcerated area.

Dr. GEYSER stated the absence of the spirochæta and the finding of tubercle bacilli was not evidence for or against either tuberculosis or syphilis being present or absent. He suspects the source of the bacilli to be the sputum of patient. One may be misled or influenced by the history, in making a diagnosis.

Dr. COCKS said that the constant presence of tubercle bacilli and giant cells in deep scrapings from the ulceration had decided his diagnosis.

Alopecia Totalis. Presented by Dr. B. F. OCHS.

Male, age forty-three; at the age of twenty-nine years, contracted scarlatina; this was followed by total blindness which lasted about three months. Eyesight now normal. Subsequently noticed a gradual loss of hair involving eyebrows and scalp; the other parts of body, axillæ and pubes are not involved. The process took fourteen years; the eyebrows are entirely gone, also the upper eyelashes; lower ones remain. The scalp is almost entirely bald, save a small tuft of hair here and there; the face shows a growth of beard in spots. The hairs in the axillæ and on pubes still remain. Up to three years ago had a moustache.

Dr. OBERNDORFER would not call it alopecia totalis; it is rather a case of very extensive alopecia areata. In alopecia totalis all the hair on all parts of the body disappear. Believes the two conditions are two distinct diseases; as to the return of hair in alopecia totalis the prognosis is bad; in alopecia areata no matter how extensive, the prognosis may be good.

Dr. PISKO had presented two cases of this kind to the Society at different times. In one, after one and one-half years' treatment with 2% pilocarpine injections and resorcin and alcohol locally, there was a return of growth. In the second case, under the same course of treatment for a considerable period, the result was negative.

Dr. GOTTHEIL said alopecia areata was common; alopecia totalis extremely rare.

Dr. KINCH has seen a case where, under treatment, the new growth of hair was white; in another, painting with pure carbolic acid over small areas resulted in a growth of hair; he uses this method of treatment, also placing his main reliance upon hygiene and tonics.

Dr. GEYSER advocated the high frequency current as an irritant and stimulant to the scalp.

A. BLEIMAN, Secretary.

REVIEW
of
DERMATOLOGY AND SYPHILIS
UNDER THE CHARGE OF A. D. MEWBORN, M.D.

BENIGN NEW GROWTHS.

BY DAVID LIEBERTHAL, M.D., CHICAGO.

Syringoma. J. CSILLAG. (*Arch. f. Derm. u. Syph.* 1904, lxxii., p. 175.)

The question, does the tumor originate from the endothelium of blood or lymph vessels or from the surface epithelium, is still a matter of much discussion. From the consideration of six cases of his own observation C. undertakes to answer this question. Five cases presented tumors on the eyelids only, while in the sixth such were found on the trunk also. They represented irregularly rounded and moderately lobulated slight elevations of the color of the normal skin or were whitish-yellow to yellowish-brown, from the size of a pinhead to that of a hemp-seed. They were, as a rule, not harder than the surrounding skin. not glossy nor did they include any milia. Serial sections were made from tumors of all cases and offered, besides the usual findings in this affection, the following: In the middle strata of the corium not quite up to the papillary layer, and not quite to the depth of the coils of the sweat-glands, were strands of one or more rows of cells, which strands showed branches. The strands as well as their branches, terminated either in cysts including a colloidal mass, or in spheres or in club-shaped forms, all these consisting of concentrically arranged cells; or they were reduced to one row of cells disappearing within the connective tissue. The club- and spear-shaped groups of cells and the cysts were also found isolated in the connective tissue without any connection with cell-strands.

The basal layer was intensely pigmented and numerous pigment cells were seen in the papillary layer. The inter-papillary epithelial pegs were broadened and elongated. The spherical and cystic formations of the tumor showed a peculiar arrangement, inasmuch as larger spheres of cells and the cysts, with thick walls of epithelial cells were generally situated in a line on the surface of the tumor in close proximity to the epidermis, being just opposite to the broadened and elongated inter-papillary pegs, so that there appeared to be a close relation between them. And, truly enough, in a large number of sections there were found forma-

tions presenting a connection between the pegs and the elements of the tumor, consisting of processes of several layers of cells emanating from the interpapillary pegs, especially from their bases, and extending through the cutis to the tumor. All these connections with the tumor were visible on its surface only, which goes to show that the tumor is supplied from above, i.e., from the surface epithelium. These findings leave no doubt that syringoma is of an epithelial origin. According to the findings of Philippon, Grossmann, Winkler and the author, the tumor is not a stable congenital anomaly, but the product of a postnatal process, consisting in the production of projections from the lower rows of cells of the epidermis, from which the tumors develop. After a certain length of time the whole process comes to a standstill. The greater pigmentation of the basal layer, the broadening and elongation of the interpapillary pegs, and the projections therefrom and their connection with the constituents of the tumor vanish. Therefore, the authors who have examined tumors at the period of standstill, could not have observed the changes which Csillag describes.

Neurofibromatosis (Generalized) with Molluscum Pendulum of the Right Side of the Face and Ptosis of the Auricle. BENAKY. (*Ann. de Derm. et de Syph.*, 1904, V., p. 977.)

The patient was forty years old. There was no history of his having had syphilis, nor of a similar skin affection in his family. He was in good health and complained only of tiring easily. The right auricle was considerably hypertrophied and dependent, the external auditory canal being level with the angle of the jaw. The skin of the right cheek was pendulous, resembling a pouch containing in its wall two dense nodules, one the size of a hazelnut and painless on pressure, one the size of a hen's egg and very sensitive. Hearing on the right side was quite impaired. On the posterior and left side of the neck and left side of the face were about fifty fibrous nodules of lentil size, while distributed over other parts of the body were about a hundred small hemispherical tumors, from the size of a pin's head to that of a walnut. Some of these tumors were connected with superficial nerves. Besides there were observed point-like pigmented and lentil-sized vascular naevi. He claims to have had all these symptoms as long as he could remember and that they have gradually developed.

Naevus, Spontaneous Involution of a Giant. L. SPITZER. (*Dermat. Zeitschr.* 1905, XII., p. 24.)

The patient was a young man of twenty-four. At birth the whole inner aspect of the left thigh was the seat of a deep black verrucous tumor, thickly beset with coarse black hair. It remained unchanged until the age of four, when it began to disappear at the lower border. At the

time of observation by the author there was only left a pigmented verrucous naevus of the size of the palm of the hand just below the inguinal flexure, representing the upper portion of the original tumor, while from its lower margin to the knee, the inner aspect of the thigh was perfectly smooth, level with the normal skin and showing only light brown pigmentation. The papillæ within the periphery of the tumor appeared pinkish, *i.e.*, depigmented, and sloped until they gradually vanished in the surrounding brown area. Numerous papillæ were undergoing necrosis, becoming dry and hard. Within the naevus a dark hair was seen here and there, while in the brown area they were short, thin and light.

Neurofibromatosis, Multiple (Fibromata Mollusca), L. MERK. (*Arch. f. Derm. u. Syph.* 1905, LXXIII., p. 139.)

In his observation of cases of fibroma molluscum, Merk noticed two interesting complications. In the one case besides the typical symptoms of the disease, atrophic spots of various sizes were found in which pigmentation was totally absent. He calls this condition "Leucoderma Atrophicum" and inclines to the opinion that it may be considered a rare symptom of the disease and not an accidental finding.

The second complication was disclosed at the post-mortem examination of another case of Neurofibromatosis and consisted of considerable changes of the left adrenal. It was greatly enlarged. There was no line of demarcation between the cortical and medullary substances. Microscopical changes: Only here and there small islands of cortical substance; strands of closely packed cells with well-stained oviform nuclei; the cellular substance finely granular and partly filled with fatty droplets, or vacuoles respectively; moderate indications of an inflammatory process. From normal parenchymatous cells seem to have developed formations, the nuclei of which are enormously enlarged and composed of a number of vesicular globes while the cellular contents show no other marked changes. Although the author would not attribute to this latter complication as much importance as to the "Leucoderma Atrophicum" found in the first case, nevertheless, he believes in the possibility of a connection between the changes in the adrenal and the pigmentation in this disease.

DISEASES OF THE SWEAT AND SABACEOUS GLANDS.

By H. G. KLOTZ, M.D., NEW YORK.

Sweat Glands, Stainable Granules in the. (*Zur Kenntniss der färbbaren Körnchen in den Schweissdrüsen.*) MARIA WERSITOFF. *Inaug. Diss.* Bern, 1904.

Wersitoff continued investigations made by Tschlenoff (*Arch. f. Derm.* 49, p. 185) of certain stainable granules in the sweat glands, which had been described by Babes, Unna, and others. From 40 corpses she examined skin from the breast and from the anterior margin and from the center of the axilla, and in 26 cases, that is, in 65 per cent., she found the acid proof granules staining with carbol-fuchsin and other stains; in 19 in abundant, in 7 in more scanty numbers. It, therefore, appears that their occurrence, at least in the localities examined, is by no means infrequent. W.'s investigations do not shed any light on the conditions under which these granules are found; they are more numerous on the breast than in the axilla, notwithstanding the greater inclination of the latter region to sweat secretion. The diseases which had caused the death of the patients, and particularly tuberculosis, apparently had no influence on the number of the granules; in young individuals they seemed to be more scanty than in grown people of different age. W. minutely describes again the granules and refers to the opinions of different authors. Incidentally she paid attention to the opinion of Virchow, that the sweat glands become enlarged in consequence of hyperidrosis, but could not find conditions confirming the same. In the axilla the granules were found in the larger glands as well as in the small ones, indicating functional equality of the two classes of glands.

ATROPHIES OF THE SKIN.

By EDITH MEEK, M.D., Boston.

Acrodermatitis Atrophicans, demonstration of a case of. Demonstration eines Falles von Acrodermatitis Atrophicans. BRUNING. (*Berlin klin. Wochenschr.*, 1905. xxxii, p. 1025.)

The patient is fifty-nine years old, says he has previously had only scarlet fever and measles. The skin of both legs and knees is affected, for many years there has been a bluish-red coloring of the skin of the feet, they have also been swollen, especially at the ankle-joints, so that walking has been painful. The disease slowly extended, attacked the knees and formed by degrees the present atrophic condition. The skin of both knees, especially that of the left, has lost its elasticity, is very much thinned and wrinkled, and looks like crumpled cigarette paper; it is peculiarly withered and dry, and, in consequence of the disappearance of the fat, is very easily pushed about. The color is blue red, and the

veins show through as blue stripes. The adjoining skin is reddened and slightly infiltrated. On both feet, especially on the dorsal surfaces where the skin is tightly stretched, it has a waxy appearance; this skin is atrophic. On the right foot the atrophic condition extends further up than upon the left, reaching about to the lower third of the leg. On the right ankle-joint the skin is fissured and covered with silver gray scales, hair and follicle mouths are for the larger part absent on the atrophic areas, the secretion of sweat is normal, no nerve lesions are present. This is a case of *Acrodermatitis atrophicans*, an especial kind of skin atrophy which is preceded by inflammation; this is the erythematoinfiltrative stage, it is localized at the distal ends of the extremities, and from there proceeds in a progressive form. This is different from the so-called *Idiopathic atrophy*. No atrophy of the skin should be called primary because whatever it may be, *idiopathic progressive skin atrophy*, *acrodermatitis atrophicans*, *senile*, or *atrophic striae*, it must be preceded by either an inflammatory or degenerative process which the patient might not have noticed. We must therefore class all atrophies which have no preceding stage of a well known and clearly defined skin disease as *idiopathic* in contrast to such diseases as *scleroderma*, *lupus erythematosus*, *sypilis*, *favus*, and *pityriasis rubra*.

The etiological factor of the disease is unknown.

As a rule the patients are, in all other respects, healthy individuals without noteworthy hereditary tendencies or nervous stigmata. Moderate itching and knife-like pains are felt by the patient. The therapy is purely symptomatic.

The histological picture is especially interesting, there is a complete disappearance of the papillary bodies, the horny layer is thickened, and the rete malpighii is very much narrowed. In the sub-epithelial collagenous tissue and in the stratum reticularis, diffuse cellular infiltration is found, which consists of leucocytes and Unna's plasma cells. It is localized especially around the vessels and the remaining hair follicles. The elastic tissue is, in the infiltrated areas, essentially reduced and wherever present has an abnormal appearance.

Atrophy of the Skin, Idiopathic, A case of. ABRAHAMSON. (*Post-Graduate Journal*, 1905, xx, p. 694.)

The following case was reported and presented to the Clinical Society of the Post-Graduate Medical School and Hospital:

The patient is a man of sixty-one years, his family history is negative. He has never had any specific trouble. At the age of thirteen had an attack of eczema of the left popliteal space, which lasted two years and at the same time several small ulcers formed on the upper and lower parts of the legs. When these had been cured a new feature appeared—hyperæmia of the toes and back of the left foot. This was shortly fol-

lowed by a similar condition of the right. The redness was unattended by pain, swelling, or itching; it disappeared leaving but a small red margin around the skin of both ankle-joints. The hyperæmic skin first turned pale, then white, then dusky-brown; it became dry, shrivelled, and covered with dark gray scales. In all other respects the patient enjoys perfect health, all internal organs are in normal condition. On examination, there is seen a decided difference in the circumference of the legs, the left is thinner than the right. This difference is due to the greater change in the skin of the left. The veins of both extremities form a complete network, and being prominent and dilated, give a violaceous color to the skin: large and painful ulcers exist around the ankle-joints and heels. The skin of the dorsum of both feet is remarkably indurated, giving the impression of scleroderma instead of atrophy; this condition has resulted from the cicatrization of old ulcers. From the middle of the left thigh and extending upwards toward the inguinal region the color of the skin is dark red and has a velvety feel. The same condition is noticeable on the thigh, but to a lesser degree. This hyperæmia precedes every new area of skin which eventually becomes atrophied. The skin of nearly the entire lower half of the body, particularly that of the extremities, has undergone marked atrophic changes. It is soft, wrinkled, and easily thrown into folds, and has the feeling of tissue paper: the whole surface is covered with easily detached gray scales.

NOTICE.

Warren Triennial Prize. Massachusetts General Hospital.

THE WARREN TRIENNIAL PRIZE was founded by the late Dr. J. Mason Warren in memory of his father, and his will provides that the accumulated interest of the fund shall be awarded every three years to the best dissertation, considered worthy of a premium, on some subject in Physiology, Surgery, or Pathological Anatomy; the arbitrators being the Physicians and Surgeons of the Massachusetts General Hospital.

The subject for competition for the year 1907 is on SOME SPECIAL SUBJECT IN PHYSIOLOGY, SURGERY, OR PATHOLOGY.

Dissertations must be legibly written, and must be suitably bound, so as to be easily handled. The name of the writer must be enclosed in a sealed envelope, on which must be written a motto corresponding with one on the accompanying dissertation.

Any clew given by the dissertation, or any action on the part of the writer which reveals his name before the award of the prize, will disqualify him from receiving the same.

The amount of the prize for the year 1907 will be \$500.

In case no dissertation is considered sufficiently meritorious, no award will be made. Dissertations will be received until April 14, 1907.

A high value will be placed on original work.

HERBERT B. HOWARD,
Resident Physician.

PLATE XIII.—To Illustrate Dr. James Nevins Hyde's Article.



PLATE XIV.—To Illustrate Dr. James Nevins Hyde's Article.



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THE EGG-SHELL NAIL.

By JAMES NEVINS HYDE, M.D., Chicago.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

IN conjunction with my colleague, Dr. Ernest L. McEwen, I presented a paper at the twenty-eighth annual meeting of the American Dermatological Association, which was later published in the December number of the JOURNAL OF CUTANEOUS DISEASES for the year 1904. The title of this communication was "The Relation of Certain Dermatoses to each other and to Changes in Vascular Equilibrium." The attempt was made to demonstrate the fact that embarrassment of the circulation was chiefly responsible for a list of disorders which previously had been discussed under different titles, and without special consideration of the vascular changes often associated with the alterations obvious in the skin. As examples of these dermatoses we cited: Hyperidrosis localis; dysidrosis, hydroa, pompholyx, cheiro-pompholyx; keratoderma erythematosa symmetrica (Besnier); keratoderma palmaris et plantaris; keratosis palmaris et plantaris; erythema keratodes; symmetrical tylosis of the palms and soles; hyperkeratosis of the palms and soles; hyperkeratosis subungualis; subungual keratoma; onychauxis; onychogryphosis; "chronic inflammatory disease of many finger nails;" and dystrophia unguium.

Illustrations of the progressive changes in the skin and nails of the hands and feet, occurring presumably under the influence of alterations in the arterial, capillary, and venous pressure, were cited in the following order: First, abnormal and persistent coldness of the hands and feet; second, coldness of these organs associated with hyperidrosis; third, cold, wetness, and bleb-formation in the same regions; fourth, in consequence of the vulnerability of the moist hands and feet, three grades of inflammatory reaction betrayed in

hyperæmia, inflammation, and ulceration; fifth, the keratoma-effects of lost equilibrium of circulation, in both mild and severe grades; sixth, two well-defined changes in the nails of the hands and feet, the first without subungual keratosis, the milder form; the second, with more or less severe keratosis, not merely about the nail, but over the palms and soles. Two variants of this condition were described: The first, with a soft convoluted nail; the second, where the fingers were clubbed and the nails apparently eburnated.

In the following pages the attempt is made to illustrate one of the special conditions enumerated above in fuller detail than was possible in the paper devoted to the larger subject. The disorder is described in the sixth of the divisions recognized as related both to the others and to more or less permanent disturbance of the circulation. The obvious changes affect the nail chiefly, which is in all characteristically and similarly altered in objective features. The title "egg-shell nail" has been selected as descriptive of but one of these features, though that is uniformly present and conspicuous. The phrase is not intended to suggest a relation between the conditions recognized in the nail and the thinness or friability of an egg-shell, but is employed solely by reason of the color of the altered nails. Everyone knows that the outer part of the shell of the domestic fowl is variously tinted in different specimens and under different conditions. But the inner faces of all such egg-shells are identical in hue. The color is an exceedingly delicate combination of white and purple—this last tint so faintly displayed that only the eye trained in distinction of color can readily appreciate its presence. In all cases where the nail-changes are significant, if the shell of an egg be laid with its inner face next the free border of the nail beyond the phalanx, whether of hand or foot, no shade of contrast between the colors of the two can be appreciated.

The cases described below have been selected as illustrations of a group comprising about a score of young patients who have come under observation during the last three years. All were women, the most were young; and it is noticeable that none of the patients complained of any affection of the nails. Each applied for relief of some dermatosis having no relation to the peculiarities noted below.

CASE 1. J. D., female, aged seventeen years, weight 110 pounds; all her functions were properly performed; her mother was an invalid from nervous disorder. Otherwise the family history was good. The urine was found to be normal. This patient applied for relief of a

pustular acne, chiefly affecting the dorsum of the trunk, decidedly more annoying than in the average of similar cases. The heart-beat was normal.

As far back as she could remember, the patient had always had wet hands and feet, worse at times than at others. In winter the feet were cold, clammy, and wet. Her stockings, when removed from the feet, were always damp. She destroyed both shoes and gloves sooner than her friends of the same age, by reason of the continual dampness of the hands and feet.

When examined, the hands and feet were found to be cold and wet. The nails of all the digits in both sets of organs were thin, up-tilted at the free border, fairly natural in color so long as they were adherent to the nail-bed, but when free from the pulp of the digit exhibited the hue of the inside of an egg-shell. Pressure on the nail-bed through the medium of the nail by the aid of a diascopé, produced the usual temporary anæmia. The general color of the hands and feet was nearly natural.

This patient was a girl of social position, with carefully manicured nails, and led a life of ease. She was younger in years and better nourished than the three other patients selected for illustration. The obvious changes in the nail corresponded strictly with those recognized in the other cases described.

CASE 2. F. U., female, aged eighteen years; unmarried. In February, 1902, she applied for relief of facial acne. She represented a class of girls brought up in luxury, with a delicate constitution; no evidence of tuberculosis was discovered. She weighed 110 pounds, was exceedingly pallid, and menstruated very irregularly. The heart-beat was registered at about 90, with strongly accentuated sounds, though no cardiac murmur was detected. She had always suffered from wet hands and feet, giving the usual history respecting the care needed to protect her clothing from the wetness of the hands. Examination of urine was negative.

The face was sprinkled with indolent lesions of papular acne, the complexion being in general of a muddy hue.

The nails of both hands and feet were altered. The digits were wet, and on close inspection a delicate pale purplish hue could be recognized in the nail-bed through the semi-transparent nail substance. Irregular whitish areas were mingled with faintly empurpled, poorly-outlined patches, rather more conspicuously in the nails of the index and middle fingers of both hands. That these colorations were due to irregularities in the circulation of the fluids in the nail-bed was made evident by the disappearance of the tinted areas under firm pressure.

All the nails were thin. The free portions of each presented an

abnormally whitish-purple hue, such as characterizes the inside of the hen's egg. Each was perceptibly up-tilted, away from the longitudinal axis of the digit. For the purpose of demonstrating this peculiarity, the nail of the little finger of the left hand was selected for illustration in color. The two hands, with their nails, seen in the drawings, show irregular colorations in the nail-bed, and characteristically changed free borders of each nail-plate. In the inspection of the drawings it is to be remembered that the hands when under examination, were continuously dampened with sweat.

CASE 3. S. P., female, unmarried, twenty years of age; employed as a telephone operator; applied in May, 1904, for relief of a condition of the scalp which had existed for several years previously, and which had resulted in alopecia of that region in patches. On microscopic examination this condition was discovered to be due to favus of long standing. The patient was a Jewess of clear complexion, weighing 120 pounds, menstruating irregularly, but with other functions, the circulation excepted, normally performed. She toiled at her work during exacting hours, and presented the general appearance of a young woman in delicate health. She had always, she thought, suffered from dampness of the hands and feet.

When examined, the heart-sounds were normal, but there was intermittence in the pulse, considerably exaggerated after exercise. The hands and feet were damp; the nails of both sets of organs were characteristically altered.

The free borders of the finger-nails had the peculiar egg-shell whiteness described in the other cases. Just above the limit of this whiteness at the distal margin of the nail-bed, was a delicate band of warmer purple than in the other patients examined. Above this the hue of the nail-bed, as seen through the semi-transparent nail substance, was of a colder purplish tint. The margin of all the finger-nails at the nail-fold presented a cold bluish-purple hue. The two hands were uniformly tinted; there were no areas in which the purplish hues seemed to be accentuated. Each nail was at its free border, visibly tilted away from the axis of the finger. The transverse convexities were exaggerated; the edges of the nails were deeply imbedded.

The toe-nails were characteristically changed, presenting features for the most part similarly displayed in each patient of this group. A purplish-blue narrow band furnished a margin for the distal border of the nail-bed; there were no irregular areas of coloration. A light bluish-purple line marked the contour of the nail-folds. The general color of the foot was normal.

The toe-nails presented a peculiarity visible in some of the other cases here reported, seeming to be unusually sunken in the damp

tissue of the dorsum of the distal phalanx and were abnormally curved transversely, as if contracted from side to side, with the result of producing an unusual arch of the free border, the egg-shell-white free parts of the plate tilted away from the long axis of the digit, thus looking upward. The general appearance of the toes, with their abnormally whitish and curved sunken nails, suggested maceration.

The patient stated that she had been obliged to trim the nails of the feet as closely as possible, in order to set aside the consequences of the up-thrust of the nail-growth. Each plate presented the appearance of unusual convexity and narrowing. A singular effect was produced when the plates thus shortened were critically examined. The dorsum of the distal phalanx of the toe presented a slightly macerated appearance, and was damp to the touch, being wholly unprotected by the nail-plate. The bulbous and sodden extremity of the digit was therefore covered by the integument only. The nail was represented solely by the thin edge of a semi-circular blade, projected vertically and serving in no sense as a protection to the digit.

CASE 4. Miss E. B., aged twenty-five, a milliner's apprentice, applied on March 23, 1905, for relief of a mild grade of papulopustular acne. Her family history was negative as respects inherited disease. She weighed 100 pounds, menstruated very scantily and irregularly, none having occurred during the preceding two months. She was a young woman of delicate appearance. The urine examination was negative. Patient complained of short breath when exercising. No cardiac murmur was found, but the heart acted with irregular rhythm and rapidly, often 90 to the minute. There was slight adenopathy of the submaxillary glands of the right side. Her father was living; her mother died of some gastric disorder; one brother had pulmonary disease; the only sister died in infancy. She had always suffered from cold and damp hands and feet.

When examined, the hands were found to be covered with sweat, but were of a wholesome general hue. The free border of each nail presented the whitish-purple egg-shell color; the distal border of the nail-bed was designated by a slightly warm purplish band, exceedingly narrow; the central areas of the nail-bed were bluish-purple; the borders of the nail-folds were traced with a delicate light-purplish line. Some of the nails of the hands showed clearly that they had been soiled and partially injured by the nature of her work. None had been manicured, as in the case of some of the other young women here recorded. The free borders of the nails were obviously tilted

away from the axes of the digits, notably those of the fore and little fingers.

The toes were, in general, of a bluish-purple hue, but no tinted bands and lines were displayed, as in the hands. The nails served in a measure to protect the distal phalanges, but each had an upward tilt, and the process, as a result of which, in other cases reported, the soft part of the extremity of the digit was left wholly unprotected, had here apparently produced some effect. The abbreviation of the transverse curve of the nails was most conspicuous in the third, fourth, and fifth toes, each of which displayed a characteristic gap beneath the free border of the plate. The egg-shell hue was present, but less demonstrable than in the other cases reported.

These patients, as explained above, are selected instances of a special and characteristic modification of nutrition of the nails, and represent a group of other patients whose cases might have been cited. The following features were common to all: The patients were all women; all young; all below the standard of sound health; none having any distinct affection of the circulatory system; all, however, exhibiting marked interference with stability of vascular equilibrium; each suffered from hyperidrosis of the hands and feet. The group represented two social classes—the delicately nurtured, not engaged in self-supporting toil, and those employed in more or less exacting labor.

In some of the cases there were distinct changes in the hue, not of the nails merely, but also of the skin of the hands and feet, bluish and purplish shades being recognizable in the integument of these organs at some distance from the nails, as also in the nail-beds visible through the semi-transparent plates.

The exceedingly intimate relation between the nail-changes here described and disturbance of vascular equilibrium, has been described by myself and my colleague, Dr. McEwen, in the communication on the subject made to this Association in the year 1904.

To a variable degree in each, the nails of both the fingers and toes were involved in the change. The nails were thin, never coarse in structure. There was a distinct tendency in all to a curving of the nail-plate away from the axis of the bed, as also to an abandonment of that portion of the dorso-terminal extremity of the digit commonly protected by the free border of the nail. Each nail-plate after leaving its bed presented the characteristic purplish-white hue visible on the interior of the shell of a hen's egg.

None of these patients applied for relief of the affection de-

scribed; each was chiefly concerned with a wholly different disorder.

The changes in the nail here described are without question intimately associated with hyperidrosis. It would seem that constant maceration of the distal portions of the organs involved, interferes with the normal cornification of the nail-plate, the result being declared in an unusual translucency of the nails, an enfeebling of their connection with the distal portion of the nail-bed, and a distinct tendency after their release from the nail-folds to growth in an upward, rather than in a forward or onward direction. Whether this abnormal direction be due to unusual inhibition in the cornification of the external layers of the plate, or to abnormal activity in the deeper strata of the cells of the nail-bed, has not been determined.

The relation of these changes in the nail to perturbation of the vascular equilibrium, and to the source of this perturbation in the nervous centers has been discussed in the preliminary paper on this subject, to which attention has been directed.

TWO CASES OF MULTIPLE TUMORS OF THE SKIN IN NEGROES, ASSOCIATED WITH ITCHING.

By Dr. JAY F. SCHAMBERG, Philadelphia, and Dr. ROSE HIRSCHLER, Philadelphia.

From the Laboratories of the Philadelphia Polyclinic.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

TWO years ago a patient with remarkable multiple growths in the skin came under the observation of one of the authors. Within the past six months, an almost identical case was brought to the attention of the co-essayist; these two cases have been studied jointly and the results are herewith presented.

Mrs. C. G., is a stout, robust colored woman of forty years; she was born in Philadelphia and has lived exclusively in this city; the patient's parents were born in Virginia. Her mother had dropsy and her brother kidney trouble. Patient had the usual diseases of childhood; contracted typhoid fever seven years ago; has suffered from rheumatism for eight years. Patient has been married twenty-two years; had one miscarriage, no children. Menopause came on about fourteen years ago; a short time before this the eruption, presently to be described, first made its appearance.

According to the history given by the patient (in which too much confidence as to accuracy should not be placed), the eruption appeared upon the arms, legs and back in the form of "small, dry whitish nodules." The full complement of lesions developed, it is stated, in the course of two weeks, and no new nodules have appeared since this time, although the lesions have grown larger. The nodules itched and the patient scratched the tops off, thus purchasing relief for several days.

Description of eruption (from notes made an May 28, 1903).

On the arms on the extensor surfaces are about 120 nodules, sixty on each arm, having the following characteristics: they vary in size from a pea to a small finger-nail, are blackish in color, contrasting with the brown integument; they are firm to the touch, most of them distinctly elevated and covered with a somewhat horny epidermis. They are neither painful nor tender on pressure. Some have a distinctly warty feel, which is due to the thickening of the horny epithelium. A half dozen lesions or more are seen upon the dorsal surfaces of the hands and fingers. One lesion on the hand shows the loss of the overlying horny skin and discloses to view a reddish brown, smooth nodule which looks almost as if it were encapsulated. Upon the back is a score of scattered lesions, having the same general characteristics, but flatter. The legs, particularly the extensor surfaces, show upon each side about a dozen lesions, some of which are of the size of the thumb nail and have a distinctly hard and horny feel. The toes and soles of the feet are free as are likewise the palms of the hands. The nodules are sharply circumscribed and there is no tendency to coalescence of lesions. The skin between the various lesions is entirely normal.

A horny nodule upon the back of the hand was removed for microscopic study. Some months later it was observed that a new nodule had formed at the site of the excised growth.

The patient on interrogation, states that she still has itching, although its intensity varies greatly at different times.

The urine contains albumen, and hyaline and granular casts.

The second case was also in the person of a colored woman. This patient did not apply for treatment of the cutaneous condition, but was in the Maternity of the Woman's Hospital under the care of Dr. Clara Dercum, where she was seen by the authors. The history of this patient is as follows:

J. B., aged twenty-five, is a full-blooded negress; stature about 5 ft. 5 in., weight about 160 lbs. She was born in Virginia, but has

lived in Philadelphia since early childhood. Patient claims to have had all the diseases of childhood, but speaks especially of a severe attack of diphtheria at the age of ten. This was shortly followed by an attack of mumps. Between the attack of mumps and the outbreak of the eruption presently described, but a brief period intervened. The patient steadfastly maintains that the various lesions constituting the eruption, appeared at about the same time. No new lesions have since developed, although many have gradually increased in size. The outbreak of the eruption was attended by severe itching which remained a constant source of trouble, and for which all sorts of home remedies and drugs were tried. Temporary improvement was obtained by rubbing the skin with strong salt water, but the greatest relief was produced by scratching. The patient states that the itching at times has been violent, particularly during the menstrual period. The eruption has not essentially changed since it began fifteen years ago.

The patient was married in 1902, and claims to have lost her first child by overwork and a fall, which occurred just before a premature labor; the still-born child was free of any eruption. A second child was born in October, 1905; this infant was premature, but was in good health; the lying-in was normal.

The patient is well built and of very dark skin. The trunk is free of eruption save for the presence of a few small acne pustules on the back; the neck and face are free. The lesions are exclusively found upon the extremities; they are especially noticeable on the dorsal surfaces of the feet and the anterior aspect of the knees and thighs. A few lesions are seen upon the posterior surface of the thighs. A few very small growths are seen on the soles of the feet. The total number of lesions on the right lower extremity is about fifty; on the left (by actual count) forty-four. Lesions are scattered over the arms up to the shoulders; they are most numerous below the elbow—one lesion is situated upon the thenar eminence of the palm of the hand; otherwise the palms are free of eruption. The number of eruptive elements all told on the arms is about seventy. There is no symmetry in the arrangement of the lesions. The lesions consist of nodules varying in size from a small pea to a small hazel-nut. Each growth is perfectly round. The smallest are elevated about a quarter of a centimeter above the surface of the skin, and the largest about three-quarters of a centimeter. The small lesions are covered with a smooth epidermis; as they increase in size the epidermal covering becomes rougher, many nodules acquiring a thickened horny center with sharp edges. As a result of scratching, some of the central summits are removed, leaving a fissured and bleeding surface. The center is renewed when the surface heals. A zone of darker pig-

mentation is noted around each nodule. The patient declares that a wound of the skin from scratching or other causes, never produces a new growth. The nodules are sharply circumscribed and discretely arranged, and there does not appear anywhere any tendency to confluence of lesions. The skin between the nodules is normal and is not the seat of any infiltration whatsoever.

Histopathology.—Three nodules were excised from the two patients for microscopic study: two from the first patient and one from the second. The first nodule, covered with a thick horny layer, was taken from the back of the hand, the second was a small smooth nodule from the arm, obviously younger and without any visible thickening of the epidermis. The growth taken from patient No. 2 was also a smooth nodule of the same character as the second growth.

Description of Nodule A, Case No. 1.—Under low power an enormous hypertrophy of the horny layer of the epidermis is at once seen. The stratum corneum is about five times its normal thickness. The keratinization of the epithelial cells is markedly imperfect; this is particularly evident in sections colored with Mallory's stain. At various depths throughout the horny layer, but more particularly in the most superficial and in the deepest strata are visible, well defined fusiform cells with pale nuclei which take the aniline-blue stain well. These cells stand out in sharp contrast with the intensely yellow keratinized epithelium. Intermediate between the deep and superficial strata of the horny layer are aggregated and scattered epithelial cells which have undergone imperfect change and which stain well.

The granular layer of the epidermis is thickened and hyperplastic. The rete mucosum exhibits a pronounced hypertrophy both in its lateral and vertical dimensions, but shows no other pathological change.

Corium.—The papillary and subpapillary layers exhibit a pronounced cell infiltration which is chiefly manifest in sharply circumscribed nests. These aggregations of cells are so well defined that they resemble the circumscribed infiltrations seen in lupus tissue. The cells are in general most abundant about the blood vessels which are seen in cross section. Under high power these cells are seen to be made up chiefly of small round cells which are almost completely eclipsed by their nuclei.

The nuclear chromatin and the nuclear membrane stain sharply. The examination of many sections has failed to disclose the presence of any plasma cells. In and around the cell nests are observed many fusiform cells which bear a strong resemblance to those lining the

capillary blood vessels. Throughout the corium at various depths are seen many spindle-like, stellate and irregularly oblong nuclei. These are obviously nuclei of the connective tissue cells in various stages of development. There are also seen in the papillæ and elsewhere in the corium narrow, rod-like or spirillum-shaped, deeply stained nuclei. These are numerous along the lines of the papillary blood vessels.

The blood vessels of the papillæ are greatly dilated, often to their very apices. At the base of the papillæ is frequently seen a lacunar distension of the capillaries, and in the subpapillary layer are evident a number of small blood spaces filled with erythrocytes. The deeper vessels of the skin also show marked dilatation.

The fibrous tissue of the corium is arranged in crossed interlacing bundles, and shows a marked over-growth. The collagen fibres exhibit considerable œdema around them, but this may be due to the infiltration anæsthesia which was employed at the time of the biopsy.

Tumor B, from Case 1.—A smooth pea-sized nodule from Case 1, exhibits the following appearances:

The horny layer is somewhat thickened in the center of the lesion: the other layers of the epidermis show no pathological change.

The blood vessels of the papillæ and the subpapillary layer are considerably dilated, and when seen in longitudinal section, often contain mononuclear leucocytes. The deeper blood vessels are also dilated. Many blood vessels seen in cross section show a proliferation of the lining endothelium. The subpapillary lymph spaces are prominently distended.

The cell infiltration is visible in the form of sharply circumscribed masses or nests at various levels in the corium. In addition, the infiltration follows the lines of blood vessels, and is seen in irregular, horizontal trails, particularly in the subpapillary layer. The cell masses contain round, oval and fusiform cells; many of the last named are indistinguishable from those lining the superficial blood vessels.

In addition to the cell masses just described, there are abundant fusiform, crescentic and stellate connective tissue nuclei scattered throughout the corium. These are more numerous in the papillary and subpapillary layer. Deeper in the corium are seen a number of large connective tissue nuclei of various shapes, chiefly ovoidal or polygonal: these show numerous chromatin granules and exhibit a sharp staining of the nuclear membrane.

Plasma cells are not seen in any sections, but mast cells are abundant.

The *elastic* fibers in sections stained with acid orcein and hæmatoxylin, are observed to be normal in number, distribution and staining reaction. Special stains fail to discover the existence of elacin or any other degenerative products.

The collagenous fibers also appear to be normal. In one section stained with acid orcein, carbol fuchsin and water blue, some areas of collagenous tissue were colored with orcein instead of water blue, thus suggesting the presence of collastin. Further trials with this stain failed to confirm this finding.

It was also thought that basophilic collagen was present in some sections stained with carbol-fuchsin-tannin-water blue, but the results were not uniform and the probabilities are that the peculiar staining was due to tinctorial caprice.

Tumor 3.—A smooth pea-sized nodule taken from the second patient, shows in brief the following:

The epidermal covering in this growth is normal.

The papillary and subpapillary layers of the corium are the seat of an extensive and irregular cell infiltration. The cell infiltration in some places extends in broad horizontal trails: in other fields there are sharply margined nests of cells. There is pronounced dilatation of the subpapillary lymph spaces; endothelial cells are seen lying loosely in the lumina. There is a conspicuous proliferation of the fixed connective tissue elements.

Sections stained with acid orcein show the elastic fibers to be normal in distribution and staining reaction. The collagen likewise shows no degenerative changes.

Sections well stained with polychrome methylene blue, show an enormous number of mast cells; these are seen among the cells in the dense infiltration, but also abundantly throughout the corium. Some are present in the papillæ quite close to the basal epithelial cells. The mast cells vary greatly in size and shape. Most of them are fusiform with similarly contoured nuclei; others are round and polygonal, while still others are branched with tapering processes. Under the 1-12 in. immersion lens, a dozen mast cells may frequently be counted in a single field.

A number of sections of the several tumors were stained with carbol-fuchsin, methylene blue, Giemsa's stain and other approved stains for bacteria, but as was to be expected from the general histological features, none was found.

In 1880, Dr. W. A. Hardaway (*Archives of Dermatology*, New York, April, 1880), described under the title of "A Case of Multiple Tumors of the Skin accompanied by Intense Pruritus," a disease which in all essential points corresponds with the affection observed in our patients. The following is condensed from Dr. Hardaway's lucid description:

The patient was an unmarried woman, fifty-one years of age, in good health, and living under excellent social conditions. The trouble began twenty-two years before the patient came under observation, in the form of "blisters," which were followed by the development of tumors. These numbered in all about sixty, and varied in size from a large pea to almost the dimensions of a hickory nut. They were covered with a thick scaly epidermis and had a resistant horny feel. In some places the tumors were confluent, forming nodulated patches. There were also present in the integument between the nodules, large thickened plates of skin which presented a rough and pigmented appearance. The eruption involved the hands, arms, feet and legs. Some lesions were present upon the palms and soles. The trunk was entirely free. One of the most pronounced features of the case was the intense and intolerable itching, which was confined to the tumors and the thickened plates of skin. The surface of the nodules often became frayed and excavated through scratching.

The microscopic changes described by Dr. Heitzman of New York, are as follows:

"The microscopic specimens of Dr. Hardaway, well prepared and mounted, exhibit a considerable hyperplasia of the epithelial and the connective tissue layers. In the former, both the epidermal layer and the rete mucosum are enlarged; on the boundary between them a stratum lucidum is in many instances well developed. The papillæ are strikingly enlarged, mainly in their longitudinal diameters and branching. They are provided with narrow capillaries, and their connective tissue holds numerous oblong elements of the appearance of nuclei. In the derma, close beneath the papillary layer, numerous nests of inflammatory elements are visible with considerably enlarged blood vessels. The nests vary greatly in size; the inflammatory elements therein show all stages of transition into basis-substance. The deeper layers of the derma are built up by very coarse bundles of connective tissue and numerous elastic fibers. Here and there a slight dilatation of the calibers of the sudoriparous glands is noticeable

The specimens represent some form of tumor of the skin, the growth of which is due to a chronic inflammatory process, mainly in the upper layer of the derma."

There can be little question that the case reported by Hardaway and those observed by us, represent one and the same disease. The clinical and microscopic features are strikingly similar. Some of the details are not in accord, but they relate to matters not essential. These differences may be briefly stated as follows: Hardaway's patient was a white woman; ours are negresses. Hardaway's patient stated that the lesions began as "blisters"; one of our patients says that the tumors appeared as "dry, whitish nodules;" the other patient cannot recall the mode of origin. The long duration of the lesions and the lack of positiveness as to recollection, cast doubt upon the exact character of the primary lesions. The itching in Hardaway's case was more intense and unremitting than in our patients, and the thickening and pigmentation of the intervening skin in his patient may be attributed to the greater amount of traumatism by scratching.

The features common to all of the cases were: (1) the development of tubercles and tumors in the skin, particularly of the extremities, accompanied by more or less severe itching; (2) the horny resistant character of the epidermis overlying the growths; (3) the persistence of the tubercles and itching for many years: the duration in the three cases has been twenty-two years, fourteen years and fifteen years respectively; (4) recurrence of the nodules after extirpation. Hardaway says, "another remarkable fact is that a large hickory nut sized tumor situated near the elbow which was thoroughly and completely excised (enucleated) for microscopical examination sixteen months ago, is now replaced by a tumor assuming its original proportions and other external physical properties.

The two nodules which were excised by us from Case 1, have been replaced by tumors of the same character as those removed. We have not had the opportunity of seeing Case 2, to determine whether the growth excised has returned.

(5) The microscopic changes in Hardaway's case as described by Heitzman, are identical in their main features with those observed by us. The phraseology of Heitzman: "In the derma, close beneath the papillary layer, numerous nests of inflammatory elements are visible with considerably enlarged blood vessels, the inflammatory elements show all stages of transition into basis-substance," might be employed in the description of our sections.

It would appear that the case recorded by Hardaway and those observed by us, represent a disease *sui generis*. The clinical histories and the microscopic changes in all of the cases, present a tolerably uniform picture.

PLATE XV—To Illustrate Dr. Jay F. Schamberg's and Dr. Rose Hirschler's
Article.



PLATE XVI—To Illustrate Dr. Jay F. Schamberg's and Dr. Rose Hirschler's
Article.

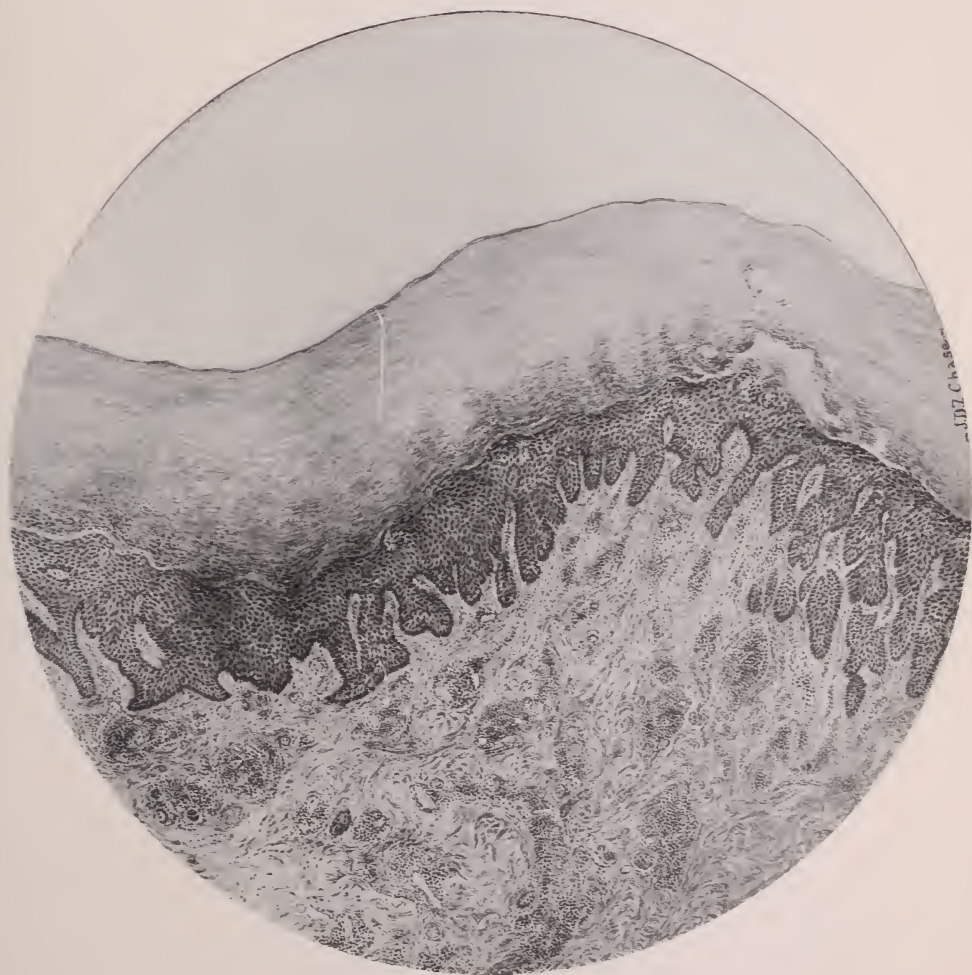


PLATE XVII—To Illustrate Dr. Jay F. Schamberg's and Dr. Rose Hirschler's
Article.

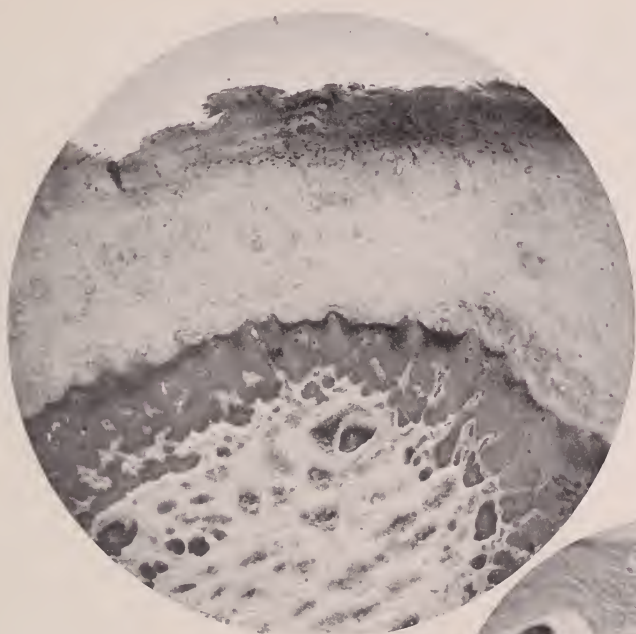


Fig. 1.

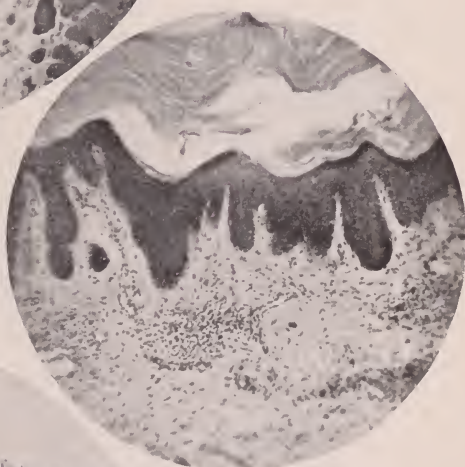


Fig. 2.

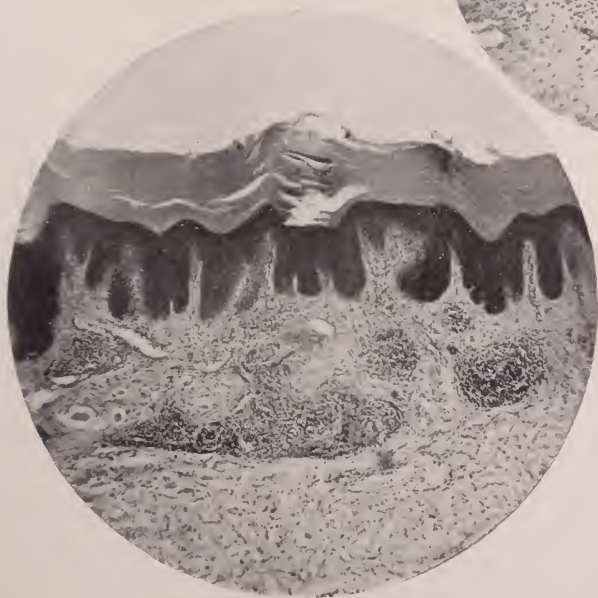


Fig. 3.

The cause of the disorder is undetermined. The thought that the growths might be the result of traumatism from scratching is neither borne out by the statements of the patients nor by the appearance of the lesions.

Pathologically, the sequence of changes appears to be as follows: dilatation of the cutaneous blood vessels; cell infiltration chiefly in sharply circumscribed masses; proliferation of the fixed connective tissue elements; formation of new collagenous fibers. In the largest and presumably the oldest tumors, there is more pronounced vascular dilatation and as a result thereof, an enormous overgrowth of the horny layer of the epidermis, a condition much like that seen in angiokeratoma. A feature of more than passing interest is the great abundance of mast cells present.

DESCRIPTION OF PLATES.

PLATE XV.—Photograph of Case 1.

PLATE XVI.—Drawing of Nodule A, Case 1. Showing hyperkeratosis and cell nests in the corium.

PLATE XVII.—Fig. 1, Nodule A, Case 1. Section shows enormous hyperkeratosis, hyperplasia of the granular and mucous layer, and sharply circumscribed cell nests in the corium. Spencer objective, 1 inch.

FIG. 2.—Nodule A, Case 2. Slight hyperkeratosis. Cell infiltration in the papillary and subpapillary layers. Dilatation of papillary blood vessels. Spencer objective, 1 inch.

FIG. 3.—Nodule B, Case 1. Section shows moderate hypertrophy of horny layer, sharply margined cell infiltration in corium and dilatation of blood and lymph vessels. Spencer objective, 1 inch.

DISCUSSION.

DR. HERMAN GOLDENBERG inquired whether the intense pruritus was universal, or limited to the location of the tumors. The speaker recalled a case that had been presented before the Berlin Dermatological Society, in which the tumor was located somewhere in the neck. There was intense pruritus, which disappeared upon the removal of the tumor, only to reappear upon its recurrence.

DR. SCHAMBERG, in closing, said that in Dr. Hardaway's case the itching was not confined to the tumors; there were pigmented thickened plaques in the intervening skin. In the case he had just reported, the itching was limited to the tumors, the intervening skin being entirely normal.

MERALGIA PARESTHETICA

By JAMES C. WHITE, M.D., Boston.

Professor of Dermatology Emeritus, Harvard University.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

THE patient, a gentleman, fifty-five years old, became aware last July of abnormal sensations in the skin of the outer lower two-thirds of the right thigh after an ordinary walk of four or five miles, whilst at Bar Harbor, Maine. He was accustomed to take such exercise. The feelings were of a tingling nature. On examination there seemed to be a tenseness, as he described it, of the area mentioned, and the touch of a single finger seemed to be felt over an unusually large surface.

From that date, on standing or walking, this region becomes the seat of a variety of perverted sensations, described as "tingling, like striking the crazy-bone," "tenseness and tearing," and formication. Sometimes there are darting feelings "like the bursting of a bubble," sometimes a dull, deep pain or ache when the leg is tired. These manifestations often begin as a glowing sensation in the part. They cease generally on sitting or lying down, but may recur in such attitudes on over-stretching or violently twisting the leg. Deep pressure with the hand over the part may bring them on. The patient is always aware of something wrong there on standing or walking. These sensations are felt every day and interfere with his habits of exercise. They are on the increase somewhat. No pruritus, or throbbing, or feeling of constriction in the affected surface have been perceived.

On inspection it is apparent that the area complained of corresponds strictly to the distribution of the cutaneous filaments of the marked differences from the corresponding region of the left thigh, perhaps a little paler only. On exciting hyperæmia by rubbing it the congestion looks more purple and recedes more slowly than in the other leg. On testing with the needle-point the whole area is found to be far less responsive than normal, and towards the lower portion, just above the patella, anæsthesia is complete. A similar condition is demonstrated on the application of various tests, the tip of the finger, pinching, scratching, and slight pressure. There is little difference in sensation in both legs on deep pressure. The whole area appreciates the application of hot water in a diminished degree, and

the lower third is wholly insensible to it. There is no change in the dimensions of the thigh.

The patient is of good habits, and has been under my professional observation on account of a slight keratosis senilis of the face for a year or more. Otherwise and generally his skin has always been in good condition. He had shown no indications of a faulty nervous system previously, and there have been no manifestations of organic or functional disorder with the exception of a feeble digestion. He is naturally worried about the possible outcome of this unaccountable affection, which interferes seriously with his customary out-of-door life.

He consulted neurologists after the development of these symptoms, who recognized their nature and made the diagnosis.

Meralgia paresthetica is a condition always confined to the position occupied in this case. It was first described some ten years ago by Bernhardt and Roth, and now finds a recognized place in all works on nervous affections, I believe, although of rare occurrence, some thirty-four cases only, I am told by Dr. E. W. Taylor, having been recorded. This case is a typical one. As the affection has not been mentioned in any systematic work on dermatology to my knowledge under the title mentioned, or its special symptoms referred to in the chapters on disturbances of sensation, I have thought it advisable to present its claims for recognition and admission to our lists of cutaneous affections.

The external cutaneous femoral nerve takes its origin from the second and third lumbar nerves, descends through the sheath of fascia lata, which it pierces at the upper anterior aspect of the thigh, and is distributed to the cutaneous tissues overlying the middle and outer portion of the limb as far downwards as the knee. It will be seen to be coincidental with the surface affected in this case.

Disturbances of sensibility of the skin have been grossly divided by most writers on dermatology into anæsthesia and hyperæsthesia. The leading, most recent textbooks offer the following divisions:

Hyde: Hyperæsthesia, Anæsthesia, Dermatalgia, Paræsthesia (including pruritus.)

Stelwagon: Hyperæsthesia, Dermatalgia, Pruritus, Anæsthesia.

Crocker: Hyperæsthesia, Dermatalgia, Pruritus, Anæsthesia.

Jacquet in *La Pratique Dermatologique*: Hyperæsthesia, Anæsthesia, Paræsthesia.

The perverted sensations included under paræsthesia by the latter are: *Polyesthésie, synalgie, erreur de localisation, allochirie, retard des sensations, fusion, sommation, épuisement, metamorphose.*

Other observers record: pain, numbness, prickling, formication, cold, heat, constriction, distension, imaginary movements, hyperæsthesia, anæsthesia, pruritus.

Bernhardt in his "Erkrankungen der peripherischen Nerven," 1895, thus briefly describes the affection: "Isolierte Lähmungen des N. Cut. femoris extraneus kommen selten zur Beobachtung. Der betreffende Nerv versorgt die Haut der vorder—und aussenfläche des Oberschenkels bis zum Knie hin mit sensiblen Fasern. Ich habe zu wiederholten Malen, im ganzen aber doch selten, namentlich Männer, nur über ein Gefühl von Kälte und Abgestorbensein, jedenfalls über Parästhesien gerade in dieser Gegend klagen hören. Die Anamnese ergab auch, dass einem Falle Bleivergiftung, in einem anderen intensive Erkältung vorangegangen war, mehrere Male aber die Mittheilung über eine noch nicht lange vorher überstandene Infectiouskrankheit, speciell Typhus. Wahrscheinlich hat man es also mit einer in diesen Zweige des Lumbalplexus isolirt vorkommenden neuritischen Affection zu thun."

Oppenheim in his recent "Nervenkrankheiten" thus describes it: "It is only lately that we have become acquainted with an isolated disease of the external femoral cutaneous nerves. Bernhardt and Roth call attention to the pains, paræsthesia and sensory disorders which occur, and not so rarely, in the area supplied by this nerve. The troubles come on chiefly, sometimes only, in walking and standing, probably because the fascia is then stretched the most. Objectively a more or less pronounced decrease in sensation upon the outer surface of the thigh is noticed, particularly in its lower area. The disorder described by Roth as meralgia paræsthesia, due to a neuritis of the external femoral cutaneous nerve, occurs chiefly in men. All those whom I treated for this disorder were alcoholics. In one neuritic phenomena were present in other nerve trunks. Other factors have, however, been given as causes. It is generally a harmless trouble. In one of my patients it has existed for twenty years without any other symptoms of disease appearing."

As will be seen by these descriptions by skilled neurologists, we have little definite knowledge of the causation of this well-defined affection. Certainly the morbid conditions with which it is said to be often associated, neuritis, tabes, rheumatism, gout, alcoholism, are absent in my case, and all other systematic or local disturbances, which would seem likely to induce any such neurotic manifestations. Nor is it apparent why the symptoms should be so uniformly limited to the cutaneous tract supplied by the external cutaneous, while the

adjoining area on the inner front surface supplied by the middle cutaneous nerve, arising from the same lumbar plexus, should remain exempt.

The condition seems to be outside the control of remedies, although massage has given partial and temporary relief in some cases.

DISCUSSION

DR. J. NEVINS HYDE said he hoped that some of the gentlemen present would be able to report similar cases. He inquired whether, in Dr. White's case, prostatic hypertrophy had been excluded, and also whether the patient had been much given to sea bathing?

DR. H. C. BAUM of Syracuse, N. Y. (by invitation), said that he had personally suffered for the past eleven years from the affection described by Dr. White, exactly the same location being involved. He had also seen two other cases that were almost exactly similar. The speaker said he had been able to find very little on the subject in literature. One of his colleagues, a neurologist, had told him that he looked upon it as a very infrequent form of cutaneous paresthesia. There was no anaesthesia; no lessening of sensation, but simply a perverted sensation. Sometimes there was formication or prickling, or a sensation of heat or intense cold. The skin apparently showed no change either in texture or color, although sometimes he had imagined there was a slight thickening of the corium.

While it never quite disappears, it is subject to exacerbations and remissions and seems to be directly influenced by the state of health, always being worst when fatigued or ill of any concurrence.

DR. HERMAN GOLDENBERG said that he also had suffered from the peculiar sensations of the skin described in Dr. White's paper, and he had been promptly cured by wearing a metal plate in his shoe for the relief of flat foot.

A CASE OF RECURRENT BULLOUS ERUPTION OF THE FACE. PROBABLY PEMPHIGUS HYSTERICUS.

By FRANCIS J. SHEPHERD, M.D., C.M., LL.D., Edin.

Lecturer in Dermatology, McGill University, Montreal.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

MISS HILDA B., aged twenty, consulted me on the 10th of April, 1902, for an eruption on the face which had affected her for the last four years. Sometimes she is quite free from it. Being a girl who was fond of society, she is unable to enter into its gaities for she never knows when her face is going to break out. The eruption appears first as small inflamed blisters on the forehead, chin, cheeks, and even nose. These blisters soon increase to the size of a ten-cent piece, fill with bloody serum, then discharge and form scabs. There may be half a dozen or more of these blisters at a time. As a rule the bullæ come out in successive crops and last about a month. She may be free for a week or so. The blisters burn but never itch. There is no regularity as to where the spots may come out; anywhere on the face, often on the same spots; never on the hairy scalp. The blisters leave a pigmented mark after healing.

The first blister, she says, appeared on the nose where she had a scratch and came out after picking wild flowers. She appeared to me a girl of rather lymphatic temperament who took little interest in life, was much sympathized with by her family and although she had no positive hysterical stigmata, still she had that appearance and her throat was somewhat insensitive.

I put her on arsenic and saw her regularly for two months, but never saw the actual bullæ, she came to me when they were passing and the scab had formed. At the end of this time she came to me with a very severe outbreak of the eruption, face was covered everywhere with scabs, the result of discharged bullæ. She now told me

NOTE: Since the above was written, the patient came to me with a fresh outbreak of the eruption. This time the bullæ were very regular in shape and there were many scratches about the face. On again making a careful examination as to hysterical manifestations, I found complete insensitiveness of the throat, anæsthetic patches on the body and general nervousness. I have but little doubt that this is a "feigned eruption," the more remarkable in that it has lasted so many years.

F. J. S.

that the attack is always worse before menstruation. From June, 1902, until October, 1905, I did not see her. During this period her condition has been much the same except that now she is sometimes free from the eruption for three weeks, but when it does come, it is more severe and always worse if it comes out before menstruation, and if this is delayed it aggravates the outbreak. I treated her with Extract of Ergot with some improvement. During the past year, and especially during the attacks, the submaxillary lymphatic glands become enlarged as do the glands of the neck.

This case has puzzled me greatly: why the face only should be affected in an apparently otherwise healthy girl, and I wondered whether the rash was self-induced. So far I have found out nothing, but the girl remains an unhappy creature who is a worry to her family and a nuisance to herself.

The bullæ have never appeared in mouth or throat and never on the hairy scalp or hands. None of the other members of the family have ever had a similar eruption.

The cause of many of these bullous eruptions is obscure. It may be connected with menstruation, but in this case why, if due to some general cause, does it appear only on the face? Why has it lasted so long, and why is the girl's general health so good? I cannot divest myself of the feeling that the eruption may be self-induced, though such an explanation when submitted to the parents was scouted as absurd. I should be inclined to regard it at any rate as a trophoneurosis.

DISCUSSION.

DR. L. DUNCAN BULKLEY said the case reported by Dr. Shepherd was exceedingly interesting to him, as he had for the past ten years kept a record of all cases of skin eruptions coming under his observation or reported in literature, in which menstruation apparently had some connection with the disorder. His personal list already embraced over ninety cases in private practice of various kinds of skin lesions which were apparently more or less directly connected with disturbances of the function of menstruation, and a thorough review of the literature revealed large numbers on record. Among the cases he had collected there were several types of eruption in which the lesions made their appearance a few days before menstruation, and disappeared a few days after its cessation. There were also several cases in which a herpetic eruption, or lesions of the bullous and pemphigoid type appeared with each menstrual epoch.

Dr. Bulkley said that various theories had been advanced to explain

these skin manifestations in their connection with menstruation. Just before the onset of each menstrual cycle, there was an increase in blood pressure, and a swelling of the thyroid gland, together with other signs of constitutional disturbance, and in persons who were peculiarly susceptible to certain eruptions, those lesions were probably more prone to manifest themselves at that time.

Dr. Bulkley said that no less than twenty disorders of the skin had been reported by careful authorities in connection with menstruation. Among the most interesting were cases of true erysipelas, of which many instances were on record. In one or more of these cases the erysipelas extended over the entire head, with severe constitutional symptoms, temperature 104° - 105° , and there was a recurrence with each menstruation.

Dr. Louis A. Duhring said that from time to time he had seen cases similar to the one reported by Dr. Shepherd, and he was inclined to attribute them to entirely different causes; namely, those in which the nervous system was more or less implicated. Those that he had in mind were assuredly not due to a local irritant or any external influence. He recalled the case of a young girl who had recurrent outbreaks of blebs; these were at first thought to be factitious, but later they were considered to be due to some obscure nervous disturbance. While menstruation was doubtless an important factor in some of these cases, there were also other factors worthy of consideration.

Dr. Arthur Van Harlingen said he had reported the case of a colored girl in whom there were beginning blebs appearing at the time of the menstrual epoch. They were supposed to be due to rubbing. The lesions had the appearance of triangular cicatrices, as though the fingernail had been used to pick out the skin. In that case, there was probably a hysterical element, together with a morbid condition of the skin.

Dr. Shepherd, in reply to a question as to whether the patient whose case he had reported had any house cats as pets, said he did not think so, as she spent much of her time out of doors in the country. She had only recently volunteered information which led him to believe that the recurrent eruption was possibly connected with menstruation. He had made an effort to get her under closer observation by sending her to the hospital, but she had refused to go.

PITYRIASIS ROSEA.

By DOUGLASS W. MONTGOMERY, M.D.

Professor of Diseases of the Skin, University of California.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

IN pityriasis rosea, as usually met with, the patient applies for advice on account of a rosy, blotchy rash well distributed over the body. The rash consists of slightly elevated, light red blotches usually about the size of those seen in measles, or in the roseola of syphilis. On looking at the rash more closely, however, many of the blotches are seen to be actively desquamating, and here and there a ringed patch will be found. The outer circle of the ringed patches consists of a bright red line, while the center is a buff color, and is either actively desquamating and branny, or is thrown up into fine parallel wrinkles. The patient is almost invariably in good general health, and can give no idea of how the rash was acquired, but simply says it was first noticed on some part of the trunk, and that it quickly spread over the rest of the body, accompanied, perhaps, by some itchiness. In my own records, itchiness is recorded in only six out of thirty-eight cases, and in four of these patients the eruption was very itchy, preventing sleep and making them exceedingly uncomfortable. The absence of itchiness is important, as it is looked upon as evidence of the eruption being syphilitic, the gravest and most likely error one can commit.

We rarely have the opportunity of seeing the rash as it commences, because the patients are usually in good health, and a blotch on the skin that does not pain or itch may escape notice, or if noticed, is not considered serious enough to require treatment. Out of twenty-four cases where the patient was questioned about the length of time that the rash was noticed previous to seeking medical advice:

Four said it existed less than one week before consultation.

Four said it existed one week before consultation.

Four said it existed between one and two weeks before consultation.

Three said it existed two weeks before consultation.

Six said it existed three weeks before consultation.

Two said it existed four weeks before consultation.

One said it existed five weeks before consultation.

One said it existed twelve weeks before consultation.

In all probability, most of the cases begin by what L. Brocq has called a "primitive patch." This primitive patch is supposed to commence, as the other later blotches do, as a small red spot that subsequently becomes buff colored in the center, and spreads at the periphery by a thin, red border. After the initial lesion has existed for a few days, the more generalized outbreak occurs. I have never seen the initial lesion existing alone, but have, in some instances, been able to make it out subsequently, partly from the patient's assertion that it was the first patch to appear, and partly from its being larger and having more marked characteristics. But it is the exception to find the initial patch at all, or to get any history of its ever being present. This primary patch is almost always situated on the trunk, but may occur on the limbs. In thirteen cases where I have noted its presence it occurred:

On the abdomen in four cases.

On the chest in two cases.

On the trunk, without designating the particular region, in three cases, and

On the limbs in four cases.

As the nature of the disease is not determined, opinions in this regard differ. There are those who hold that it is due to a local infection, and there are others who are equally certain that it is a constitutional disease, due either to an infection accompanied by a rash on the skin, and therefore analogous to the exanthemata, or to some poison generated in the alimentary canal, and therefore analogous to urticaria.

Up till a few years ago, the disease used to be called *tinea corporis* or *tinea corporis maculata*, and in fact in some large clinics it is still so designated. In referring to my case book, I find that as late as fifteen years ago, I designated these cases as *tinea corporis maculata*, and of course considered them a form of ringworm. I had, however, noted that I was unable to find the fungus. Brocq, to whom we owe much of our knowledge of this disease, showed that it begins as a "primative patch," shortly afterwards becomes generalized, and then spontaneously clears up. It is said to occupy in its natural evolution about six or eight weeks. No ringworm disease runs any such course. Besides, many careful observers are absolutely unable

to find any trace of a fungus. It has been said that the fungus is found only after a most careful search, and some have stated that it is only encountered at a particular time in the evolution of the disease. Kaposi said he found a vigorous growth of mycelium in a patient whom he demonstrated before the Vienna Dermatological Society, February 22, 1899, and Neumann at the same meeting said he was able to demonstrate the mycelium in such cases by soaking the scales in xylol.¹ These findings, however, are so isolated that they serve only to accentuate the negative side of the question, for if the mycelium were present it would surely be frequently found by the many enthusiastic investigators in this field.

It has been urged, as above indicated, that the rash is due to a constitutional disturbance, and that this disturbance occurs before the appearance of the rash, and that the general symptoms have disappeared before the patient consults a physician. If there are any such general constitutional symptoms in pityriasis rosea, they must be slight, for in my experience, the patient is unable to give any definite account of them.

Of thirty-eight cases, the histories of which I have looked over, only a few gave any account of symptoms of a general nature, and such as are apt to occur in any group of cases. One patient complained of polyuria. A man said that during the first few days of the generalized rash, he had noticed that the urinary secretion was not as large in amount as usual. He had not measured it, however, and when I examined it, it was normal. Another complained of brick-dust sediment in the urine, and still another that he had a burning sensation on urinating. Jacquet has said that patients having pityriasis rosea, suffer particularly from dilatation of the stomach. This view has not received much support from other observers. In my experience, symptoms referable to the stomach or bowels have been absent or unimportant. One patient when she first noticed the rash two weeks before seeing me, had pains in the stomach and looseness in the bowels. Another patient had pains in the stomach, another indigestion, and another heartburn. In another case, the patient is noted as having a much enlarged liver. In five cases there was constipation, in two there was abnormal looseness of the bowels, and in one there were black ill smelling stools. In two instances there was anæmia, and in one the patient complained of headaches. As far, therefore, as general symptoms were concerned, nothing extraordinary was noted; nothing that one would not expect

¹ *Ann. de Derm. et de Syph.*, Serie iii., Tome x., p. 865.

to find in an equal number of people drawn from the general population.

As the disease strikingly resembles seborrhœa, especially seborrhœa annulata, it is thought by some to be a seborrhœide, and so to belong to the group of diseases including seborrhœa sicca and oleosa, seborrhœic eczema, acne, and psoriasis. The resemblance is often so close between pityriasis rosea and seborrhœa annulata that some most acute clinicians like Besnier admit in some cases not being able to make the diagnosis between them. If this view be correct, then pityriasis rosea would be a skin manifestation of a constitutional trouble as the seborrhœides certainly are, and should frequently be accompanied by other manifestations of seborrhœa. The following is the list of skin diseases found in my patients having pityriasis rosea :

| Seborrhœides. | Other Diseases of the Skin. |
|---|--|
| Three patients had seborrhœa sicca capitis. | One patient had urticaria. |
| Two patients had defluvium capilitii. | One patient had impetigo contagiosa. |
| Three patients had alopecia. | Two patients had eczema. |
| Two patients had blepharitis ciliaris. | One patient had herpes simplex. |
| Two patients had acne. | One patient had sycosis vulgaris. |
| One patient had psoriasis. | One patient had pityriasis versicolor. |
| Three patients had seborrhœic eczema. | One patient had lichen planus. |
| | Three patients had syphilis. |

Of the above sixteen seborrhœides, twelve occurred in six patients, that is to say six out of thirty-eight patients were frankly seborrhœic. Considering the fact that seborrhœa is the daily bread of a skin disease specialist's work, this would not attract attention; but if this represents the real relationship between seborrhœa and pityriasis rosea, then it could be said that those having seborrhœa are unusually prone to having pityriasis rosea.

Sabouraud has recently investigated pityriasis rosea, and concludes from the pathologic histology of its lesions, that it is a polymorphous erythema due to some internal cause of unknown nature.²

² *Revue Pratique des Maladies Cutanées, Syphilitiques et Veneriennes*, June 1, '02.

Although many observers, possibly most of them, are now of the opinion that pityriasis rosea is a cutaneous manifestation of a constitutional disturbance, there are many facts difficult to explain on this hypothesis, and the most striking of these facts is the "primitive patch." This appears a considerable time before the generalized eruption and just exactly as if it were the seat of first inoculation, from which the virus afterwards spread. The "primitive patch" is better marked than the lesions of the subsequent rash, like the lesion of inoculation in many undoubtedly infectious diseases. Peripheral extension with central clearing of the lesions is strongly suggestive of parasitism, but is not conclusive, as there are diseases of the skin not due to local parasites that act in this way. There is also the fact that although the idea that this disease was a ringworm was erroneous, yet the men who held this idea were clever clinicians, and always considered pityriasis rosea a parasitic disease of the skin. It undoubtedly gives the impression of being a local parasitic disease, and the results of treatment also favor this view. In this regard we must admit that in every self-limited disease with a wide variation in the time of its duration, it is difficult to determine the good effected by any mode of treatment. For instance, although the duration of this disease is set down as from six to eight weeks, yet we do not see the patient till the disease has run for some time and the longer it runs without treatment the nearer the disease is to its natural termination. Then again many cases run a much longer course than the time given as the average; some have been known to endure for even a year before clearing up. Nevertheless, with all this taken into account, I do believe that the treatment instituted by Jamieson and advocated by Norman Walker, is of benefit, and that it shortens the course of the disease. This treatment is entirely local, and therefore lends support to the idea that the disease is due to a parasite of the skin.

In spite of these indications that the disease is produced by a local contagium, it is very rare indeed to get any evidence even hinting toward the transmission of the disease from person to person. A patient, having pityriasis rosea, told me that a week before the appearance of the rash, he had slept with a man having a rash. He was not able to describe the other man's rash with any particularity, so of course his evidence was of very little value. In another instance, a patient told me he had used a strange bathing suit, that chafed in the axilla. The primary patch appeared in this axilla shortly afterwards.

As showing the time of evolution of pityriasis rosea, I have seen six patients who were under treatment for other maladies, that detained them under my care longer than they otherwise would have remained. In them I was able to ascertain with fair exactitude when the disease began, and also to observe when the rash definitely disappeared.

In one case the rash lasted one week.

In one case the rash lasted two weeks.

In one case the rash lasted three weeks.

In one case the rash lasted four weeks.

In one case the rash lasted five weeks.

In one case the rash lasted six weeks.

In one case the rash lasted four months.

In some cases it is impossible to make the diagnosis between seborrhœa annulata and pityriasis. There are the same light-red rings with buff wrinkled centers in both affections. Usually, however, the rapid distribution of the rosy rash is sufficient to differentiate the affections. In measles there are the severe constitutional symptoms, the catharrhal affection of the nose and throat and bronchi, the presence of the rash on the face, an unusual situation for pityriasis rosea, and the absence of the rings with the buff colored wrinkled center. In German measles because of the slighter constitutional symptoms, the diagnosis may be more difficult, but there is the same absence of the peculiar rings. In the diagnosis between pityriasis rosea and the roseola of syphilis, the gravest errors may occur. This diagnosis is especially imminent if the patient has at the same time a venereal sore together with a fresh rosy eruption of pityriasis rosea. The first search should be for the "primitive patch," and if that cannot be found, then a careful examination should be made for small red rings with the skin in the center buff colored and wrinkled. The wrinkling otherwise unobservable in the early stages can sometimes be demonstrated by placing the thumb and finger on opposite sides of a patch, and then opening them so as to put the skin on the stretch. There is also sometimes in syphilis a red ringed eruption with a desquamating center, that simulates closely a pityriasis rosea. It is a rare eruption, however, and occurs much later than the roseola of syphilis.

The desquamative green soap treatment used to be the favorite, and seemed to give good results. With a moistened hand, green soap is rubbed into the whole skin from the level of the jaw downwards, once or twice a day for six days. During another six days the

patient simply powders the skin with some indifferent powder while waiting for the separation of the shrivelled upper epidermal layers. On the twelfth day from commencing the treatment, a bath is taken for the first time, when the whole upper epidermal layers together with their flora are shed. A modification of this treatment is to add two per cent. of naphtol to the green soap. This mixture is rubbed in twice a day for two or three days, and not for six days as in the former case. The rest of the procedure is the same as in the former case. This treatment is disagreeable, oily, and irritating, and is not nearly so pleasant or to my mind as effective as that recommended by Allen Jamieson.

For quite a long time I have been using with satisfactory results Jamieson's treatment published by Walker in his "Introduction to Dermatology," which runs as follows: The patient should be soaked daily for half an hour in a bath to which two or three teaspoonfuls of Condyl's Fluid have been added, after which

R

Acidi Salicylici 3. to 5.
Vaseline 100.

is applied freely to the skin.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY

338th Regular Meeting, January 23, 1906.

Dr. GEORGE H. FOX, President.

X-ray Burn of the Abdomen Following a Skiagraphic Examination. Presented by Dr. MEWBORN.

The patient is a man, aged thirty-four years, native of Germany. He was taken with a chill about December 1, and on account of obscure pains about the hypochondriac region was admitted to one of the big New York hospitals. December 8, or thereabouts, he was submitted to four exposures to the X-ray for the purpose of taking skiagraphs. He was exposed ten minutes at a time, or about forty minutes in all at the one séance; the abdomen being at a short distance from the tube. Four days later the burn began to develop as a raised, reddened area, which soon formed blisters until the abdomen from the xiphoid cartilage to an inch below the umbilicus and extending from the mammary line on either side was one solid blister. Through the courtesy of Dr. Lebelson

of this city, I am enabled to present the case to you. When first seen about twenty days ago, the patient was in bed and suffering intense pain which had been present almost from the beginning. The area showing a burn of the second degree was seven by ten inches, presenting a raw granulating surface with a peripheral band of dark purplish papules and scattered bullæ.

The suggestion of Dr. Piffard at a previous meeting of this society to use antiphlogistin, was tried, but the pain was so much aggravated that it had to be removed at once. Dr. Lebelson found that Burow's solution, made after this formula, gave the greatest relief from pain and most rapidly promoted granulation:

| | |
|--------------------|-------|
| R | |
| Plumbi Acetat..... | 125. |
| Aquæ. | 1500. |
| Solve et adde | |
| Alumin. Sulph..... | 83. |
| Sod. Sulphat..... | 15. |
| Aquæ. | 2500. |

m.

Allow to stand for two days and filter.

Under this treatment new epidermis has formed and the wound is about one-half its former size.

Dr. LUSTGARTEN agreed with the remarks of the speaker concerning the favorable effect of the acetate and sulphate of aluminum in these cases, and he had called attention to this fact several years ago. It was quite puzzling that ordinary sedative applications such as opium, orthoform, and ointments not only do not relieve the intense pain but seem to increase it. The solution of Burow mentioned was in his experience the best treatment.

Dr. FORDYCE had noticed the same effects of the acetate of aluminum. He had found that the ordinary zinc and calamine lotion gave good results in X-ray burns.

Dr. MORROW referred to two cases of X-ray burns which had developed after repeated exposures during several months. The burns were on the legs and he had used a variety of applications, such as the calamine and zinc lotion, to which carbolic acid had been added. Carbolic acid seemed to give the best result in relieving pain. Carbolyzed oil seemed to be even better than in watery solutions. He had used orthoform but found a 25 per cent. solution of argyrol to have the same beneficial effect of silver nitrate without causing any pain. He had never used Burow's solution.

Dr. ALLEN had found that ointments were not well borne by the patient. He had used Burow's solution with a certain amount of success, but had found a weak solution of picric acid (.06 centigrams to 30 c.c. up to a one per cent. solution) the best application. He had used a methylene blue solution with at times good result, but it may cause some pain. He had treated a case three years ago which was as large as the case shown. There was now in his case a lardaceous condition of the skin, almost like a morphea, not at all like an ordinary cicatrix, with telangiectasis and dots scattered over it or a localized scleroderma.

Dr. SHERWELL said that a friend of his who by the use of X-rays had caused a number of burns believed that carbolic acid was almost a specific. This gentle-

man, a surgeon, used a 5 per cent. carbolic ointment as sedative application, he also always used it after treatment as a dressing. Dr. Sherwell had no personal experience to offer.

Lupus Erythematosus to Show the Effect of Liquid Air Treatment.

Presented by Dr. DADE.

The patient is a man who presented a number of patches of lupus erythematosus on the nose, cheeks, and forehead. He was shown before the American Dermatological Association, December meeting, in order to demonstrate the method of applying liquid air. The patient was again shown in order to permit the members to note the cosmetic result of the patch on the side of the nose which is now entirely healed and the one on the right cheek which will require another application.

Lupus Vulgaris to Show Effects of Liquid Air Treatment. Presented by Dr. WHITEHOUSE.

Mrs. M., age sixty-three years. When first seen eleven years ago there was a patch of lupus vulgaris on the right cheek about three inches in diameter which had been present about two and a half years. This patch was studded with lupic nodules. Patient's father died of tuberculosis, her mother of dropsy.

At first Dr. Whitehouse had used scarification, which had been repeated twelve times. Subsequently he had employed emplastrum salicylic acid and creasote 20 per cent. Patient had later been treated for six months with antisyphilitics by a colleague with no effect.

December 30, 1904, he began using liquid air, making five applications between December 30 and February 24. March 8 the patch was nearly well. At present there is only one tubercle remaining. Dr. Whitehouse made an application of liquid air to this lesion before the society.

Dr. BULKLEY thought the principal objection to the liquid air was the great amount of scarring. He had used liquid air two years ago at the Skin and Cancer Hospital, but he would not like to use it in erythematosus lupus in private practice on account of the scars produced.

Dr. JACKSON said that the good result of the liquid air in this case was the same as long experience at the Vanderbilt clinic had taught him to expect. He thought the scar was a good one. He did not see how anyone should expect any less scar from any sort of treatment in a deep infiltrating form of lupus erythematosus as was this case. Even if the disease underwent spontaneous healing, the scar would be deep, and the application of any destructive agent that would "cure" the case would certainly scar the skin.

Dr. LUSTGARTEN thought, as far as cosmetic result was concerned, the high frequency spark, used in the manner which he had pointed out, was far preferable. The method does not prevent recurrences, but there was comparatively little pain and no disfigurement.

Dr. FOX said that years ago he had emphasized the value of carbolic acid in the treatment of small superficial patches. For the past three years he had made extensive use of the curette. When properly used, and he thought it should not

be taken for granted that anyone could use the curette, he felt that it was the simplest and most effective method of treating this disease. Curetting may be done under cocaine or with carbolic acid, the work must be thorough. Pain was an objection to liquid air. Personally he would prefer to have the curette used rather than liquid air as the scar remaining was smoother.

Dr. DADE, in closing, said that in the case shown there would be just as much scarring without any treatment. There was no destruction of sound tissue by liquid air. Even in this case there was no punched out or disfiguring scar. In superficial lupus erythematosus there was absolutely no scarring.

Dr. LUSTGARTEN could not imagine healing in this disease without some scarring or atrophy when one takes into consideration the histo-pathological processes involved.

Dr. ALLEN had used liquid air with at times decided benefit, but he claimed that the principal advantage of the X-ray and the high frequency spark over liquid air was that new tissue growth was stimulated at times, *pari passu* with elimination of the diseased tissue, so that the resulting scar was much smoother, much more like healthy skin. This he had frequently seen in epithelioma. He agreed with Dr. Fox as to the great value of the curette. An important point to which he had frequently referred in advocating its use in lupus erythematosus was to scrape from within outward all around the margin of the lesion, boring in and scraping outward by an undermining process which is much less painful than scraping down upon the patch from without.

Dr. WHITEHOUSE, in closing, said that he had not expected any great result from the use of liquid air in lupus vulgaris. Lesions treated six months ago had only recently disappeared. Of the five or six nodules, however, at the beginning, only one remains at present. The scarring depended altogether on the depth of the disease. He agreed with Dr. Dade that liquid air did not destroy sound skin. No matter how superficial the lesions were in lupus erythematosus some scarring had been his experience.

Symmetrical Gangrene of the Extremities (Raynaud's Disease).

Presented by Dr. Fox.

The patient is a young man, twenty-eight years old whose illness began fourteen months ago as "blood blisters" on the toes of both feet. At the City Hospital several toes had been amputated.

Dr. LUSTGARTEN suggested specific treatment. The patient gave a history ofluetie infection some years ago. He would suspect in this case a specific endarteritis obliterans of many small arteries of an ascending type. Where cases were taken early, he thought a vigorous specific treatment would arrest the disease. In reply to a question by Dr. Fox if he regarded many of these cases as due to a syphilitic infection, he could only say that some were undoubtedly so, as proved by treatment.

Dr. SHERWELL, judging from his experience with Raynaud's disease, was inclined to side with Fournier in relation to former syphilitic history and causation. He had never seen such extensive tissue necrosis as was present in case shown, a shallow ulceration on tops of fingers, owing to the localized asphyxia from spasm being the most seen. Usual, and in some cases decided improvement, often complete relief, had occurred or resulted from specific treatment, so that again would seem to confirm etiology. As a suggestion following the line of use of the nitrites internally that had been referred to in the discussion, he would ask why it might not be useful to apply in some manner the nitrite of amyl, by its absorption to relieve local spasm of fingers, etc.

Dr. WINFIELD had seen a case several years ago in consultation with a

neurologist, who had suggested the administration of nitroglycerine and nitrite of soda in addition to antisymphilitic treatment for the vasomotor effects on the arteries.

Dr. BULKLEY added that he had seen very good results from the use of nitroglycerine, 1-100 of a grain every four hours, increasing to 1-50 of a grain every two hours. This dilated arteries and controlled pain.

Dr. KLOTZ had himself treated three undoubted cases of peripheral syphilitic endarteritis with clinical symptoms similar to those of Raynaud's disease: coldness and bluish color of several fingers, with superficial necrosis of the skin. They all got well under specific treatment and two of them, whom he sees occasionally, have remained well for years. All these cases were restricted to smaller arteries or their branches; one of them he had published in the *Am. Jour. of the Med. Sci.*, Aug. 1889. At that time he had searched the literature on the subject quite carefully and had followed it up since, but he had not been able to find any well authenticated case of syphilitic endarteritis as extensive or as symmetrical as the case shown to-night; the process was always restricted to one of the smaller peripheral arteries. Therefore, while he always bears in mind the possibility of syphilis as a factor in peripheral gangrene, he did not consider that syphilis was the cause in this case.

Dr. MORROW said that in thousands of cases of syphilis treated by him he had not seen one so marked as this. The lesions of syringomyelia should be thought of but he suggested iodide of potash in treatment.

Dr. ALLEN referred to a case of Raynaud's, which he had shown recently at the American Dermatological Association. In his case the lobes of the ears as well as the finger tips were numb and painful. There was no history or evidence of syphilis, but he intended to put her upon a vigorous treatment of KI and intra-muscular injections of mercury.

Dr. FOX remembered a case which had been under the treatment of Dr. Taylor. The patient was a native of Norway and the loss of fingers left stumps which taken with the former residence in Norway made him think of lepra mutilans. But that case was evidently due to syphilis. He would try a vigorous antisymphilitic treatment in this case.

Three Cases of Prurigo of Hebra in One Family. Presented by Dr. WHITEHOUSE.

The first case is a girl, aged nineteen years, in whom the lesions first appeared at one year of age; the second case, a brother aged nine years in whom the disease began at the age of four weeks; the third case, another brother aged six years, in whom the affection dates from the age of one year. The mother is healthy, but the father, it is thought, suffers from the same disease as the children, which also began in infancy. The parents and children are all native born. The axillæ, popliteal spaces, and bends of elbows are free, the axillary inguinal, cervical and epitrochlear glands are all enlarged. The skin shows papules and urticaria-like lesions. The condition is always present although worse in summer. Dr. Whitehouse expects to give a more detailed account of this interesting group at a subsequent time.

Dr. ALLEN agrees with the diagnosis prurigo of Hebra. The facies of the two boys in quite characteristic and might be described as a doughy, unhealthy skin and a dull, drawn expression with papular lesions over the sides of the fore-

head and lateral aspects of face and neck, while the center of the face was free but pale. The skin was not quite so rough over the legs in the cases presented as is usual, but the glands were quite typical.

Dr. MORROW coincided in the diagnosis and emphasized the chronic diffuse papular condition of the skin with the urticarial type at times present.

Dr. BULKLEY requested that, inasmuch as it was very important to clearly define the clinical appearance of the American type of prurigo of Hebra, Dr. Whitehouse should elaborate his presentation of these interesting cases for the minutes or into a paper, so that a clear picture could be agreed upon as to what constituted the American type of prurigo Hebra.

Dr. LUSTGARTEN accepts the diagnosis. While not entirely typical, the essential features were present.

Dr. Fox said that the cases did not seem to him as undoubted cases of prurigo of Hebra. All had a certain characteristic physiognomy, but the doubt rested upon the fact that the skin in general was not affected. The legs were soft and normal, not dry and hard. The bend of the elbows were not entirely free as in Hebra's cases. The mother states that vesicles do form at times.

Dr. WHITEHOUSE, in closing, said that the cases constituted, in his opinion, an unique group. The vesicular lesions to which Dr. Fox alluded as occurring in the young girl had in his opinion, never existed. We could not depend upon a patient's description of vesicles; to them collections of water or pus or even hard papules were indiscriminately called blisters. The complexus of symptoms, glandular involvement, freedom of flexor surfaces, hard papules preceded and accompanied by urticarial lesions were all different from eczema, and together with its early development and long existence, made up a fairly accurate picture of prurigo of the Hebra type.

A Case for Diagnosis. Presented by Dr. FORDYCE.

The patient was a woman, forty years old, who gave an indefinite history of having had a sore on the genitals two years previously. She does not remember having had any secondary manifestations.

She now has an irregularly rounded lesion on the right cheek with a peripheral infiltration and central scarring. The lesion strongly suggested lupus erythematosus, but its short duration, six months, was opposed to such a diagnosis. She also had on the anterior and superior portion of the scalp a bald and atrophic patch about three by five inches in diameter. At the edge of this scar tissue, there was an encrusted lesion about the size of a silver half dollar. While some of the objective features suggested lupus erythematosus, the clinical history of the case was rather in favor of its syphilitic nature.

Dr. MEWBORN recalled seeing the patient a number of months ago at the University Clinic. At that time she gave a history of marital syphilis the treatment of which had been very inefficient. At the time of her first appearance for treatment she presented in addition to the extensive scarring of the scalp very active tertiary manifestations of the skin in the scalp. The lesions were localized deep, disorganizing, of a gummatous character, with polycyclic borders. The condition was markedly improved under mixed treatment. On account of history he was inclined to regard the lesion on the cheek as also specific.

Dr. FORDYCE admitted that the crusted lesions on the scalp strongly favored the diagnosis of syphilis, but he thought the face lesion resembled a lupus erythematosus.

Fungating Epithelioma of the Lower Lip. Presented by Dr. MEWBORN.

Mr. Tolley, aged sixty-two years, native of Ireland, applied for treatment at the Northwestern Dispensary, for a tumor of the lower lip which he said had begun six months ago, following a blow from a sharp stick. The growth is about two inches in long diameter, extending from the middle of the lower lip upward and outward to the right and involving the inner surface of the lip as far back as the first molar. The surface is concave with edges raised about one-half an inch above the surface; rolled-over edges. A couple of small shot-like glands can be felt under the jaw (submaxillary). Recalling a peculiar spirochæta found by Hoffmann in certain cases of ulcerated cancers, scrapings from the surface of this growth were stained by Giemsa's stain and found to contain a perfectly enormous number of spirochætæ refringens, or spirillum of Vincent, as shown under the microscope. The case is presented principally for suggestions as to treatment.

Dr. FORDYCE said that it was quite easy to differentiate the spirochæta refringens in the specimens shown from the sp. pallida.

Dr. MORROW said that it was undoubtedly an epithelioma. The growth had been extremely rapid. It was remarkable that with all the breaking down of tissue there was no glandular involvement.

Dr. WHITEHOUSE in response to the request for suggestions as to treatment, thought that *inoperable* epithelioma in this situation, unaccompanied by adenopathy, should be treated with liquid air. A year and a half ago he had under his care, a case in a woman seventy-three years old, inoperable on account of age, extent of disease, and a chronic endocarditis, there was no adenopathy. He had made thirteen applications of liquid air. The tumor disappeared completely without any complications. Thirteen months later a recurrence took place to the right of the median line which event was not wholly unanticipated. The recurrence was a hard, pea-sized, pearly nodule; it is at present under treatment—the second application having been made only yesterday, and it is confidently believed that the liquid air will again be successful. In his case the tumor was of the same cauliflower-like growth as in the case presented. It is important in these cases to allow a sufficient time to elapse for the reaction to completely subside, say a week. The tumor mass should be treated in sections.

Dr. FOX thought the case shown might be operated upon surgically with best results.

A. D. MEWBORN, *Secretary.*

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held Tuesday evening, January 16, 1906, at 8:30 o'clock, in the amphitheater of the Polyclinic Hospital, Eighteenth and Lombard streets, Dr. M. B. Hartzell, in the chair.

Dystrophia Unguis. The patient had been under Dr. Stelwagon's observation for some little while and was shown in order to illustrate certain interesting features of this disease. The patient was a man, twenty-three years of age, and stated that the disease had existed since birth. There

was a history of the same condition of the nails having existed in the grand-mother. At the present time, the nails were found to be very brittle, broken in many places, seamed and atrophied. In certain areas the nail-bed was more or less exposed. The integument in general was dry and rough, and the follicles at the side of the neck were very prominent.

Syphilis, An Unusual Case of, was shown by Dr. Hartzell. The patient was a colored woman, twenty-two years of age. The disease had lasted in all only three weeks and manifested itself by circinate lesions on the upper lip, nose, and right side of the forehead. The occurrence of this type of the disease in the colored race was the subject of remark. The history in this case was very vague.

Ichthyosis Resembling Pityriasis Rubra Pilaris, A Case of, was brought before the society by Dr. Stelwagon. The patient was a boy eleven years of age. The entire body was covered with scaly, dry, fissured skin. The face and hands were but slightly involved. The condition seems to undergo spontaneous improvement in the summer months. According to the history, this patient was the only child of a rather large family, that was so affected. The points of resemblance to and the features of distinction from pityriasis rubra pilaris were emphasized and freely discussed.

A Case for Diagnosis was exhibited by Dr. Davis. The patient was a colored woman, thirty-eight years of age. Four months ago she had a generalized eruption resembling pityriasis rosea which had left behind considerable pigmentation. Nineteen months previous to the date of this meeting, while in pursuance of her duties as a domestic, she scalded her left hand. Since then she has suffered with deep and painful fissures between the fingers of this hand which have resisted treatment. On the dorsal surface of the index finger there were series of transverse fissures, and there was a hypertrophic condition of the epidermis which served to exaggerate the depth of the fissures. The right hand was also involved but not to the same extent as the left. On both there were excoriated lesions and bleb formation. No definite opinion was expressed, the members, however, asked that the case be shown later.

An Unusual Scalp Condition Resembling the Alopecia of Bowen was shown by Dr. Schamberg. The patient was a girl eight years of age, who was also the subject of pediculosis capitis. On the vertex of the scalp, there was a bald patch, the size of a three cent piece, slightly reddened as the result of treatment, in which the follicles were less prominent than normal and in which there were no broken-off hair stumps. One black hair root was visible.

Lupoid Sycosis, A Case of Extensive, was also presented by Dr. Schamberg. The patient was a man, sixty years of age. The condition had existed fifteen years. Both sides of the face were involved causing total loss of hair thereon. The skin was smooth and shiny and there were no keloidal lesions. There were some blebs on the face and the epidermis was thin and atrophied. Sycosis of the eyelids, shrinking of the conjunctiva, and abrasion of the cornea were also present. It was remarked that the case bore a strong resemblance to lupus, that had been X-rayed.

Syphilis, A Case of Tertiary, was exhibited by Dr. Davis. The patient was a man, aged fifty-two years, born in Norway and a night-watchman by occupation. He acknowledged having contracted syphilis eight years previous and had, during this period, continued to treat himself by taking 50 drops (daily?) of a solution of potassium iodid of unknown strength. The patient was referred to the Skin Dispensary of the Pennsylvania Hospital on account of a pseudo-membranous formation on the posterior pharyngeal wall which resembled somewhat a diphtheritic patch. This was diagnosed as a gumma. He also had one cherry-sized nodular, tubercular lesion on the right brow and a grouped infiltrate on the left lower eyelid, conjunctival border. He was placed on inunctions of one dram of mercurial ointment daily and after seven of these, he returned showing marked symptoms of ptyalism. The slough in the pharynx, however, had disappeared, revealing a healthy ulcer and the nodule on the eyebrow had markedly diminished. In discussing the features of this case, Dr. Davis said that he had shown it in order to demonstrate that in America, as a rule, not sufficient stress is laid on the fact that mercury cures syphilis while the iodids only "scotch" the disease, as Crocker tersely puts it.

Herpes Zoster, A Case of Recurrent, was brought before the society by Dr. Pfahler. The patient was a girl, eight years of age, and gave a history of having had five or six similar attacks in the same location in the past four years. The lesions were situated just below the right eye, extending over the entire cheek almost to the angle of the jaw and consisting for the most part of large groups of vesicles. Some bullæ were present. There were no subjective symptoms. As a rule, the attacks lasted about three weeks.

Naevus, A Case of Vascular and Papillary. Presented by Dr. SCHAMBERG. The patient was a girl eighteen years of age and had had the affection for a period of eleven years. She had been under the care of Dr. Fink. The condition consisted of a vascular and papillary naevus, four inches by two inches, situated on the left elbow, showing marked pigmentation and hypertrophy. The right border was more or less

keloidal in appearance. It seemed to show a tendency to undergo malignant change. It had been treated with the X-ray with marked improvement.

Naevus, A Case of Pigmented and Hairy. Presented by Dr. DAVIS. The patient was a man, twenty-three years of age, and gave a history of having had the condition for a period of fourteen years. The condition was that of a large pigmented and hairy naevus extending from the middle of the back over the left deltoid and half way down the posterior surface of the upper arm. At its widest portion over the back, it measured eight inches. Pigmentation has been much improved by the local application of trichloroacetic acid.

A Case of Congenital Syphilis was demonstrated by Dr. Stelwagon, occurring in a girl twelve years of age. The external manifestations of the disease had existed for about three years. At present, the nose was sunken, and shrunken to about one-half its normal size; the right nostril was almost obliterated. There was a large ulcerated lesion immediately below the nostrils. Hutchinson's teeth were also present.

A Case of Lichen Planus Hypertrophicus was exhibited by Dr. Stout through the courtesy of Dr. Stelwagon. The patient, a woman forty-eight years of age gave a history of having had the condition for about four months. The disease was confined to the legs. The skin from the knees down showed numerous, violaceous angular papules. Some were umbilicated. The papules were unusually large and elevated. There were numerous plaques formed by the coalescence of these papules. Fowler's solution was given internally, and locally liquor carbonic detergens was being applied.

A Case of Tinea Sycosis occurring in a man forty-three years of age, was brought to the attention of the society by Dr. Davis. The patient, a native of Belgium and a designer by trade, stated that the affection had begun three months ago in Belgium. When first seen, two weeks previous to this meeting, there were marked, nodular, pea to egg-sized tumors on the neck, kerion type. At the time of the last observation there was marked involvement of the entire bearded region, the chin and cheeks included, together with one pea-sized, elevated, inflammatory lesion on the upper lip. There was also a phlegmonous inflammation on the back of the neck, which was perhaps also due to the same cause. The intensity of the inflammation and the other exaggerated manifestations seemed to point to an animal origin.

A Case of Sarcoma of the Buccal Mucous Membrane and Palate previously shown by Dr. Shoemaker was presented by Dr. Pahler in

order that the society might observe the improvement that had been occasioned by the X-ray. The patient had been exposed one hundred times, using the leather screen. Each exposure lasted ten minutes, with the tube at eight inches from the patient. The X-ray was applied orally as well as extra-orally.

A Case of Tumor of the Hand was presented by Dr. Hirschler by courtesy of Dr. Schamberg. The growth was situated on the dorsal surface of the index finger of the left hand. It was a recurrence of a similar growth removed some time previously. The growth was examined microscopically and the section was very suggestive of sarcoma. The entire condition had existed one year. The patient's age was fifty years.

A Case of Blastomycosis, previously exhibited, was shown for Dr. Davis by Dr. Knowles. The patient was a man, forty-three years of age, and a machinist by occupation. The disease had existed for a period of about four months, and was situated on the back of the right hand, covering almost the entire dorsal surface from the base of the fingers to the wrist, and presenting a typical appearance. Microscopic appearance was positive. The case was brought before the society at this time in order to demonstrate the marked improvement that had taken place during the past month under X-ray treatment. The marked granulomatous tissue had entirely disappeared and the puffing and inflammatory symptoms were gradually being overcome. There was no longer any pustulation. The hand could be used by the patient without causing any pain on motion. In all, only eleven exposures to the X-ray had been made.

A Case of Pityriasis Rosea Occurring in a Mulattress, twenty-two years of age, was presented by Dr. Davis. The condition had lasted eight days. There were typical macular and circinate lesions with slightly scaly centers, scattered scantily over chest and abdomen, and profusely over the back. The case was shown chiefly to bring out discussion as to the points in the differential diagnosis of this disease in the colored race.

A Case of Lichen Planus was brought before the society by Dr. Schamberg. The patient was a boy, ten years of age. The duration of the disease was about three or four months. The manifestations of the disease consisted of shiny violaceous papules varying in size from almost pin-point to pin-head, most abundant on the arms and legs, but also present on the body. The case was of interest because of the youth of the patient and the minuteness of the lesions.

Tuberculosis Verrucosa Cutis occurring in a boy, eleven years of age, was also shown by Dr. Schamberg. The condition had been followed by tuberculosis of the lymphatic glands. The patient, about six months ago, cut his foot while walking barefooted in the street, and at the site of this injury the disease developed, producing a silver-dollar sized infiltrated warty patch. Subsequently, several of the femoral glands became enlarged and suppurated. These were incised and several fistulæ now lead from the glands to the skin. In the discharge from these openings tubercle bacilli were found.

Papular Necrotic Tuberculide occurring in a Russian Jewish boy, six years of age, was exhibited by Dr. Schamberg. There were numerous, deep-seated, papular lesions on the dorsal surface of the hands, forearms and face, bluish in color. The circulation of the hands was also sluggish. Some of the lesions presented necrotic areas. The discussion brought out the fact that most of these cases were observed in the Russian Jew.

SAMUEL HORTON BROWN, Reporter.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of A. D. MEWBORN, M.D.

PHOTOTHERAPY AND RADIOTHERAPY

By MILTON FRANKLIN, M.D., New York.

X-ray Technique. KENNAN DUNHAM. (*The Lancet Clinic*, Feb. 3, 1906.)

Unquestionably the most important consideration in the use of the X-ray therapeutically is that of dosage, and radiotherapy has no greater stumbling block than the difficulty of obtaining a definite and permanent unit by which to measure the ray.

Kennan Dunham discusses the different proposed methods, and indicated a technique for various lesions treated with the ray.

The spintermeter and milliamperemeter combined are of great use to individuals in obtaining similar results at different times, but do nothing toward rendering the results of different operators comparable.

The radiochromometer of Benoist and Holtzknecht used together are considered the best means at present at our disposal for standardizing the ray doses.

In the treatment of lesions that are of greater or less thickness, the

law of inverse squares should be considered, as it may be readily shown that where the tube is placed near the surface, a portion of the tumor at some depth receives only a minute proportion of the rays as compared with a portion on the surface, whereas with the tube at a greater distance, there is relative uniformity of action through the whole mass.

It is always desirable to give the required dose in the shortest possible time, and therefore the tube should be placed as near as the other limitations will permit. If the lesion is large, the portions remote from the center will receive less action owing to the angle at which the rays impinge. This follows from the fact that the intensity of light varies as the cosine of the angle to the normal. Practically, the anticathode, should be at about that distance from the center which is equal to the diameter of the lesion treated.

The quality of the ray is of great importance, but this varies in the same tube from time to time, and an adjustable vacuum is therefore desirable. The point on the tube from which emanate the most potent rays is a question of some uncertainty, and the author finds that those points situated on the axis of the cathode, normal to its surface, and that point through which a line perpendicular to the cathode stream are of equal and strongest potency.

It is found in practice that high tubes at some distance from the surface are most suitable for deep lesions, while soft tubes situated near the surface are most suitable for superficial lesions. Screening variously modifies the quality of the rays. The accumulative effect of repeated exposures is an important one and often results in severe burns.

Of the conditions that may be benefited by the rays, *acne vulgaris*, is perhaps cured by the action of the rays in drying up the sebaceous glands, but the use of the rays is not always indicated except in cases where keloid has appeared in the scars.

In keloids, the results are sometimes remarkable though often there is no result at all. In every case where the patient is disfigured, the rays are indicated.

In eczema, only those cases that have proven refractory to other treatment should be rayed.

Warts may be effectually removed by a few long treatments with a soft tube. The surrounding skin should be carefully protected by a screen.

Psoriasis can always be temporarily benefited at least, and the method has the advantage of not causing pain or disfigurement.

Lupus, bone tuberculosis, consumption of tubercular peritonitis, the author has never seen benefited.

In lymphatic leukæmia, the results have been striking beyond expectation. The patient improves rapidly, but the permanency has been disappointing in its absence.

In conclusion the author says that there must eventually develop

some means of accurately measuring the rays. The treatments may be pushed to the limit of endurance of the skin without regard for the other portions of the body, and that most of the objections that have been made to the X-rays may be attributed to imperfect knowledge. If we do not expect too much of the ray we will learn to properly classify this new and powerful agent.

Leprosy in the Philippines, with an Account of Its Treatment with the X-rays. H. BROOKMAN WILKINSON. (*Jour. Am. Med. Assn.*, Feb. 3, 1906.)

As is generally known, leprosy is diffusely scattered throughout the entire Philippine archipelago, not being much more abundant in any one locality than in another. Whether or not the disease is on the increase, it is not possible at the present time to state, but it is rare to see a case of less than several years standing, owing, probably to the fact that they have not been seen earlier by a competent physician.

Wilkinson describes cases and treatment as carried on at the hospital in Manila. The treatment with X-rays was begun in 1904. That portion of the body presenting the largest leprotic deposit was generally chosen and the treatments were generally for ten minutes at from seven to ten inches. In only two cases was the skin actually burned, and it is interesting to note that they are the first two patients herein reported as cured. Should superficial burns occur, treatment for the time should be suspended until tissue repair begins. A table is given which shows that out of thirteen cases three patients have been cured, seven improved and three not improved.

The author concludes that the action of the X-rays is as follows: "When a local lesion of leprosy is treated with X-rays, the organisms there localized are killed and their bodies absorbed by the system, thereby producing an immunity against the living organisms. This, as may be seen, would be practically analogous with the immunization of individuals against bubonic plague by injecting into them killed cultures of plague organisms. In our case we simply grow the culture of lepra bacilli in the human body as a culture medium and then kill them by the use of the X-rays. In support of this theory, I cite the following facts:

1. The treatment of one leprous spot on a patient produces improvement in spots at a distance from the one actually treated.
2. The cure in the distant spots seems to progress parallel to and to be just as complete as in the one treated.
3. The best results seem to be obtained only when treatment is pushed to the point of killing or beginning to kill the tissues, which would also probably be to the point of killing the organisms.
4. Cases in which there are massive localized leprous deposits, as in Case 5, are most rapidly improved. As in these cases, we have an

abundant culture on which to operate and thereby produce immunity more rapidly.

5. In 'diffuse general involvement of slight degree or atrophic character where there are only a few scattered organisms we have had little success.

6. In two well-advanced cases in which the amount of new leprotic tissue was excessively great, the improvement was marked and rapid, but followed by loss of general health and rapid physical decline. This may be an over-dosage, so to speak."

Danger and Protection in X-ray Work. W. LEHMANN. (*Medical Record*, Feb. 3, 1906.)

Considering the many publications dealing with the dangerous effects of the Roentgen rays and the ways of avoiding them, and regarding the fact that already in text-books, as for instance in Allen's excellent monograph, various devices have been given for protecting the operator as well as the patient, it seems almost superfluous to take the matter up again, but recent experiences on the part W. Lehmann have lead to results of sufficient interest to warrant being recorded.

In the early days of the Roentgen rays, very long exposures were essential, and frequent burns and other bad effects were noted, these were subsequently made use of in the treatment of skin lesions until finally other untoward effects began to manifest themselves with annoying frequency. Methods of measuring dosage have gradually been developed until at present very few bad effects are reported.

Even now, however, the effects of the rays are not wholly understood and the physician who administers the rays is the latest and most frequent sufferer. The small individual doses added to constantly have a cumulative effect which is found to be of grave portent, so that the question of protection to the operator has become an important one. These effects include not only injury to the skin, but changes in the vital organs. "The habit of using the hand to make fluoroscopic examinations has been responsible for many of the injuries, a dry chronic eczematous condition of the skin, which became swollen, board-like, thickly scaling and cracking has commonly followed. Ulcerations and sometimes unrelievable pains followed, the nails became dry, brittle, fissured, and distorted, fell out and were often permanently lost, the owner of such a hand was not only unable to do surgical work or disinfect the hand, but had in most cases to complain of severe pains beside the ugly appearance."

General disturbances are not uncommon. Cardiac palpitation has been frquently observed and recently certain cerebral disturbances have been noted. The action of the rays on lecethin are significant in this connection. Abdominal disturbances have followed in some cases of

prolonged exposure, and in some experiments on rabbits, severe symptoms of nephritis have been observed.

By far the gravest of the injuries to which the operator is subjected is the destruction of the functional tissues in the genito-urinary organs. These occur without apparent injury to the integument.

The X-rays, in striking the walls of the tube and other hard and dense substances, generate secondary rays which in themselves are capable of injuring, and the operator must be protected from these as well as from the X-rays.

Among the many precautions and protective devices recommended, there are boxes enclosing the tube, screens, lead shields, and finally it is recommended that the operator should not expose himself to the rays at all in the same room but should oversee the operation of the tube from another room by means of a mirror.

DISEASES OF THE HAIR AND NAILS.

by

S. H. BROWN, M. D., Phila.

Abnormal Variation of Pigmentation of Hair. A case of this very interesting and unusual condition was exhibited before the July, 1905, meeting of the London Dermatological Society by GRAHAM LITTLE (*British Journal of Dermatology*, August, 1905). The patient was a boy nine years of age. The family history was negative save that he had one brother who was the subject of keratosis follicularis. The boy's hair was of a sandy color except for a small patch the size of a sixpence upon the vertex which was of jet black. There was no disorder of pigmentation of the skin either in this patch or elsewhere. The black patch had been noted all his life in this position.

Moniliform Hairs. F. BERING (*Archiv f. Derm. u. Syph.*, May 1905) gives an account of this condition occurring in a boy five years of age. The mother of the patient had noted the peculiar nodular thickening of the hair shortly after birth. The family history in this instance was particularly interesting. The father and the father's sister were likewise affected. At the time of the child's birth, however, the hair appeared to be normal. At the last examination, a distinct hyperkeratosis at the mouth of the follicles was observed. This condition was especially well-marked in the hairs near the forehead, while at the nape of the neck it was replaced by a slight hyperæmia of the margin of the scalp. The moniliform condition of the hairs was typical. The lanugo hairs and the hairs of the eyebrows were normal. Microscopic examination showed a chronic inflammatory disturbance around the follicle and atrophy of the sebaceous glands. The mouth of the follicle was

plugged with a cornified mass. Bering advances the opinion that pressure exerted by this mass determined the moniliform changes in the hair.

Moniliform Deformity of the Pubic Hairs. Another instance of the foregoing condition is recorded by GEORGE PERNET (*British Journal of Dermatology*, August, 1905). This case, however, was one affecting the pubic hairs almost exclusively. The patient was a man, forty-five years of age who had been under treatment for syphilis. The hairs of the pubes were very sparse, short, and crinkly, giving a singed appearance to the parts. According to the statement of the patient this had existed for years. The affection of the hair was not considered to be due to syphilis, although when he first came under observation, he had the scars of two recent sores, no doubt primary lesions on the pubes. The hairs showed irregular, longish, fusiform swellings, the root ends exhibiting atrophy, and the free ends being more or less brush-like. The pigment was either absent or much fragmented.

Congenital Alopecia. At a meeting of the London Dermatological Society, April, 1905, (*British Journal of Dermatology*, May, 1905), SEQUEIRA showed a case of congenital alopecia occurring in a healthy well-developed girl, three years of age. The parents and their three other children were quite healthy, and there was no history of a similar condition in any relative. The patient's scalp was covered with fine downy hairs, but was quite devoid of normal hair. Occasionally a few hairs would grow to the length of an inch or more and then fall out. The eyebrows were also wanting and the eyelashes were poorly developed. The condition had existed since birth and was not associated with any other abnormality.

Congenital Alopecia. A. A. ESHNER (*American Journal of Medical Sciences*, 1905, p. 622) records the history of a similar case which he describes under the euphonious title of "Universal Congenital Atrichia." There was an entire absence of hair on the body and some changes in the nails, both of which had existed since birth. The literature of the subject is also referred to by Eshner.

Hereditary Hyperkeratosis of the Nail-bed. A. GARRICK WILSON (*British Journal of Dermatology*, January, 1905, p. 13) relates the histories of three extremely interesting examples of this condition with references to previously reported cases. The hereditary nature of the condition was accidentally discovered while examining the first case, a child who had been brought by its mother, with a peculiar condition of its nails. It was noticed that the mother's finger nails were similarly affected and she stated on inquiry that her toe nails were likewise involved.

and that her mother, one sister and two brothers had presented the same peculiarity in the nails of both hands and feet.

The surface of the nails was smooth and at the base normal in appearance, but towards the free extremity the nail was raised up from its bed by a dark, friable, horny mass, which projects under the free edge. The nails were found to grow much faster than the horny tissue underneath. The hair and skin were quite normal in every case, as were also the teeth and there were no associated congenital defects such as sometimes occur in these cases. There was no evidence of syphilis, either congenital or acquired, and no signs of past or present ichthyosis or other skin diseases. Examination of the horny tissue from the nail-bed after maceration in liquor potassæ showed the absence of any spores. The nails caused no pain in themselves, but were very inconvenient. The affection had been noticed in all of the cases at birth and had persisted throughout the entire lifetime of each subject.

Koilonychia. GEORGE PERNET, before the April, 1905, meeting of the Dermatological Society of Great Britain and Ireland (*British Journal of Dermatology*, June, 1905), showed a case of koilonychia occurring in a woman, aged forty-nine years. Her nails had commenced to be affected about three years previously. The change involving the nails of the index and middle fingers of both hands. These were more or less spoon-shaped and they presented transverse and longitudinal ribbing. Some keratosis of the nail-bed was observed about one of them. The nail of the right ring finger showed some undermining about the center of its distal end. All the nails were finely ridged longitudinally. The patient had suffered from eezema of other parts for some few years, but the four altered nails did not appear to be the result of the local skin changes (eezema) of the finger ends. The general health was good. Improvement of the local condition was observed after the administration of arsenic internally and the application of a salicylic acid ointment externally.

Atrophy of the Nails following Measles. A case of this character was rather recently observed by T. J. HARTIGAN (*British Journal of Dermatology*, April, 1905) in the person of a girl, eighteen years of age. Three months after the exanthem all the nails were shed and subsequently regenerated except in the case of the thumbs, both index and middle fingers and big toes where they were either very thin, striated, and longitudinally fissured, or apparently absent, the posterior nail fold having grown forward and become adherent to the nail-bed, through which more or less of the root of the nail could still be felt. The family history was entirely negative. There was no evidence of syphilis and she never had had any other illness. The duration of the condition was thirteen years.

BOOK REVIEWS.

Radiotherapy in Skin Diseases, by Dr. J. BELOT. Translated by W. DEANE BUTCHER, M.R.C.S. Thirteen plates, twenty-six illustrations. Price \$4.50. *Rebman Company, New York*, 1905.

We cannot better express our admiration for this work than to repeat the eulogy expressed by the Commission of the Paris Academy of Medicine, in bestowing upon the author, Dr. Belot, the Chevillon prize. This Commission, composed of Landouzy, Cornil and Monod, presented this work to the Academy with the words "*Un seul, mais un maitre ouvrage*," in which "the science and practice of radiotherapy are as clearly as completely exposed in this book which does honor to French medicine."

While primarily written as a practical guide to workers in the field of dermatological therapeutics, the first part of the book is devoted to the different forms of apparatus, instruments of measurement and a review of the properties of the ray and hypotheses as to its nature. The second part is devoted to a study of the nature of radiations from an X-ray tube and the factors which govern their application. The third part, purely clinical, treats of the various dermatoses in which radiotherapy has been employed. From the long list given, very few dermatoses have escaped a trial of this agent, which at first has been exploited most extravagantly by many injudicious ones. Under the guidance of scientific and modest workers such as Belot, Radiotherapy is destined to find its field and method of use clearly defined.

Treatise on Diseases of the Skin for the Use of Advanced Students and Practitioners, by HENRY W. STELWAGON, M.D., Ph.D., Professor of Dermatology in the Jefferson Medical College and Woman's Medical College, Philadelphia. Dermatologist to the Howard and Philadelphia Hospitals. Member of the American Dermatological Association. Associate member of the French Society of Dermatology and Syphilography and of the Italian Society of Dermatology and Syphilography. *Fourth Edition, thoroughly revised*. With 258 illustrations in the text, and 32 full-page lithographic and half-tone plates. Philadelphia and London. *W. B. Saunders and Company*, 1905.

The first edition of this book was amply reviewed in this Journal in 1902 (xx. p. 524); the favorable opinion there expressed has been endorsed and sustained by the profession, as the appearance of the fourth edition within a little more than three years sufficiently proves. Although thoroughly revised, the character of the book remains unchanged; it not only contains a large amount of direct information, but the numerous references to literature, principally in the foot-notes, enormously widens the sphere of its usefulness. Throughout, there prevails a fair, sober and conservative judgment of facts and theories, old and new, and a concise, clear language, which leaves no doubt of the author's opinion. The practical side of dermatology, principally diagnosis and treatment, has been accorded the greatest attention. These characteristic features of the book again become manifest in those portions which have received the greatest share of revision: those treating of the therapeutic use of the Roentgen rays, high frequency currents and the Finsen light. Everywhere throughout the book

the endeavor to bring it up to the latest developments is visible, nevertheless its size has not materially increased. The colored plates from Mracek's Atlas, which had been reproduced in the former editions, have been withdrawn and replaced by ones depicting some of the author's own cases; there are also a number of new text-cuts and additional plates. No doubt, the new edition will be even a greater favorite with the profession than the earlier ones.

H. G. K.

CORRESPONDENCE.

64 E. 56th Street, March 11, 1906.

To the Editor of THE JOURNAL OF CUTANEOUS DISEASES:

In the report of the discussion following Drs. Bowen and Bronson's papers on the Bullous Diseases in the March issue of the JOURNAL, the theory of auto-intoxication is referred to by several speakers as mine. I cannot claim such honor. It is merely an addition to the work on failure in the metabolic processes which is now being carried on so extensively everywhere. Even so far as the skin is concerned, work has been done along these lines in France (*Journal de Physiologie*, 1904, 1905) better in the case of Brocq's assistants than I have been able to do it owing to lack of control of the patients, although mine was begun about the same time. The matter is perhaps not of much importance but I do not wish to be misunderstood.

Yours truly,

(Signed) JAS. C. JOHNSTON.

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No. 5

THE LIFE HISTORY OF A CASE OF MYCOSIS FUNGOIDES.

By GEORGE T. JACKSON, M.D., New York.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

HAVING had, through the courtesy of Dr. F. S. Hope, of Portsmouth, Va., the privilege of noting the clinical course of a case of mycosis fungoides from its beginning to its lethal ending, it seems to me of sufficient importance to warrant my reporting it. For us as practical men, it is quite as important to know the clinical course of a disease, as its pathological anatomy.

Miss S. M. N., aet. thirty-three, United States. The patient was a woman in easy circumstances. Her father had an epithelioma of the face, and many of his family were rheumatic.

The patient was first seen by me on November 27, 1901, having been sent to me by Dr. Hope. She was spare of flesh, but in good general health. The only organic disease of which she complained was an irritability of the bladder.

She stated that up to August, 1900, she had had no trouble with her skin. At that time a red blotch appeared on the right thigh which remained stationary. In May, 1901, a number of new blotches appeared and she began to suffer from pruritus. When I saw her for the first time, she presented a general eruption of dull, brownish red, irregularly rounded, ill defined patches of various sizes and shapes. These were slightly thickened and scaly. The patient stated that the patches were permanent, and that they itched severely at night. At this time I was in doubt as to the diagnosis. Under thiation by the mouth, and the external use of lotions of carbolic acid, and of oil of cade, she obtained relief. For many weeks no new lesions appeared, and the pruritus did not trouble her.

On October 29, 1902, the patient called on me again. Many of the patches were as when I first saw her. On the anterior fold of the right axilla there were two small, red, raised patches. On the inner side of the right upper arm there was a large, oval, sharply defined, slightly raised patch. The diagnosis of mycosis fungoides was now made. This was verified by Dr. George H. Fox, to whom

I sent her in consultation. I learned from her that she had consulted Dr. George T. Eliot during the previous summer, and that he had made the same diagnosis and advised that she should take Chaulmoogra oil. She had taken the oil up to thirty drops during the day without benefit. I advised Dr. Hope to give her arsenic, and to continue the carbolio acid lotion and to try chloral hydrate 4, camphor 4, amyli 30.

On January 6, 1903, the patient wrote me that she was more comfortable, though the patches were more scaly and she was more nervous.

About the first of January, Dr. Gwathmey, of Norfolk, began to treat her with X-rays, giving her exposures of from three-quarters of an hour to one hour and twenty minutes, two or three times a week. Dr. Hope continued the Chaulmoogra oil and injections of cacodylate of soda, the latter every other day.

On June 1, 1904, the patient wrote me that her skin was smooth and free of lesions, but as dark as a mulatto. She had "skinned from head to foot and have all new skin, even my nails are new." Her itching had almost ceased. Her skin, she wrote, "seems very much more tough than ever before." She found that the use of cod liver oil externally was grateful to her skin.

On July 7, 1905, the patient's sister wrote me that during the previous winter, my patient had been treated by X-rays and was apparently well. From time to time her abdomen would become greatly swollen, and then subside after a few weeks. In the fall of 1904 she consulted Dr. Carmichael of Washington, on account of a persistent exfoliation of the skin. He advised X-rays, and Dr. Gwathmey continued the X-rays and cod liver oil inunctions. The exfoliation almost entirely ceased. Then she had a fever, and in two days she was as bad as before. She shed all of her hair and nails. She returned home and grew steadily worse. On August 14, 1905, the patient died. The intermittent fever stopped about one month before she died, but during it an uncontrollable diarrhoea set in which continued until she died. Before she died her skin became normal in appearance, excepting the pigmentation which continued.

Summary.—The course of this case was almost exactly five years. The disease first showed itself in August, 1900, and the patient died in August, 1905.

The eruption was macular and scaly with but slight tendency to tumor formation.

Pruritus was a marked feature of the case.

X-rays controlled the pruritus and caused a disappearance of the lesions, but produced excessive hyperpigmentation of the skin and, possibly, an exfoliating dermatitis.

A chronic enteritis caused death by exhaustion.

THE EVOLUTION OF A CASE OF MYCOSIS FUNGOIDES UNDER THE INFLUENCE OF ROENTGEN RAYS.

By CHARLES J. WHITE, M.D.

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Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

THE presentation of this paper is made with much chagrin for it records the death of a man who succumbed to the effects of a too rapid relief from his malignant disease.

The patient was fifty-two years of age, a farmer by occupation, a native of this country, and a man who had always enjoyed the best of health.

The present disease began in March, 1902, with a slight eruption between the shoulders and from that time on the disease had gradually extended. The earliest lesions were small, slightly tender, red infiltrations, usually surmounted by thick, brown-white scales. Pruritus had always been a prominent symptom. As time went on other lesions appeared on the extremities and especially on the back, while the original plaques became prominent and nodular.

In June, 1904, a red area about an inch in diameter, developed on the pubes and was capped by a crust which soon gave place to an ulcer which, in a short time, reached the size of a hen's egg. Four other patches of a similar nature appeared on the pubes and underwent the same evolution, thus producing a localized, irregular, ulcerated surface. These important lesions were not accompanied by much pain and apparently did not interfere with the man's general health.

On June 26, 1905, the man entered the Skin Ward of the Massachusetts General Hospital. Physical examination revealed a well developed and nourished man. Pupils reacted equally to light and to accommodation. The throat showed a mild follicular pharyngitis with small, palpable glands in the neck. The lungs were normal. The pulse 72 beats to the minute, regular and of good size and tension. Over the apex of the heart there was a well marked systolic murmur, poorly transmitted to the axilla. Liver and spleen were

normal in size; abdomen normal to palpation and percussion; the bowels constipated. The urine was slightly high in color, 1020 in specific gravity, acid in reaction and contained 2.5 per cent. of urea. Albumen and sugar were absent. The sediment contained nothing abnormal.

The forehead, eyebrows and eyelids were thickened and leathery and covered with scales in ill-defined patches. Similar, but less marked patches were scattered over the scalp, cheeks and neck. On the trunk were numerous lesions varying in diameter from one-half to five inches, roughly arranged along the lines of cleavage, discrete and confluent and presenting all gradations in consistency from round, deeply colored, slightly infiltrated, scaling macules to small and large, round, oval and oblong tumors, elevated one-half inch above the surface and firm, hard and painless to the touch. The extremities showed small, sparse tumors, more numerous on the thighs. The area below a line drawn between the crests of the ilia presented a solid mass of swollen, red, thickened tissue, most prominent on the left side where there were three ulcers. The uppermost and largest of these ulcerations was irregularly oval, one inch by two in diameter with concave, red, glistening base accompanied by abundant serous exudation. The upper edges of this ulcer were precipitous, the lower sloping. The other ulcers were similar in character, but smaller. Extending from the left ilium to the scrotum, appeared a long fold of hypertrophied skin about an inch in thickness, topped by a deep longitudinal fissure. The inguinal glands were distinctly infiltrated. The scrotum was considerably swollen, due partly to induration of the skin, partly to œdema of the tissues beneath.

June 29. X-ray exposures were begun.

June 30. Starch baths; ulcers cleaned with hydrogen peroxide and enzymol.

July 6. Hair of scalp and eyebrows decidedly thinned. Over the scalp and face sparsely disseminated, round and slightly elevated nodules were noted varying in diameter from $\frac{1}{4}$ to $\frac{1}{2}$ inch. The general appearance of the skin was dull and dusky red in color. Between the body tumors the integument decidedly infiltrated and smooth and shining in appearance. The pubic ulcerations were cleaner and healthy granulations were already evident. The rugæ of the scrotum were highly accentuated.

General exposure to X-rays. Ointment of salicylic acid and bismuth to the face. Ointment of boracic acid to body surface elsewhere. Wash of tartrate of iron and potash and applications of hydrate of potash to the pubic ulcers. Liquor potass. arsenit. three minims t.i.d.

July 12. The scrotum more swollen and œdematous. Omit Fowler's solution.

July 19. The hypertrophic and ulcerated supra-pubic tissues were much reduced in thickness and the ulcerations were almost free from sero-purulent accumulations.

July 20. Bisulphate of quinine grains V and fluorescin (1-30 sol), minims X t.i.d. To the scrotum a wash of tincture of opium and subacetate of lead.

July 23. Œdema of scrotum much diminished.

August 3. Fluorescin was omitted on account of polyuria.

August 10. Supra pubic region much improved and presented an irregularly round, nodular plaque studded with clean granulations. The lesions on the back were shrunk, but some had slightly ulcerated on the surface. Both feet moderately œdematous and pitted slightly on pressure.

August 15. Infiltration of face considerably abated. Back of hands much thickened. The tumefactions of the body generally decreased in size and elevation, while the skin as a whole exhibited a light bronze hue.

August 18. Urine high in color; specific gravity 1022; acid in reaction and albumen in slightest trace. R Acetate of potash three drams, t.i.d. Blood:—Red cells practically normal in shape and amount. White cells 16,000. Neutrophils 60 per cent., small lymphocytes 29 per cent., large lymphocytes 8 per cent., eosinophiles 2.5 per cent., basophiles 0.5 per cent.

August 22. A marked change. Temperature 103.5, respiration 25, pulse 100, strong and regular. Lungs negative. Slight systolic murmur at apex. Heart not enlarged. Visceral examination negative. No discomfort and no pain. R Alcohol bath. Spirit. æther. nitros. Salts. X-ray exposures stopped.

August 23. Temperature 104. Pulse 100, regular and of good tension. Respiration 21. Slight headache. Alcohol baths have not reduced the temperature. R Ice water sponge bath.

August 24. Moderate headache. Pulse intermittent. R Phenacetin gr. V every half hour for three doses. The infiltration of the skin everywhere has markedly subsided since the advent of the febrile condition. Most of the tumors flattened to the general body surface. The bronze tint of the skin more pronounced. R Continue ice baths. Salt solution per rectum, six ounces every four hours. Whiskey one ounce every three hours. Strychnine gr. 1-60 t.i.d.

August 25. Patient somnolent and rather hazy, but answering intelligibly.

August 26. Loss of weight rapid.

August 27. Consultation with Dr. H. F. Vickery who agreed to diagnosis of toxæmia and advised no change of treatment.

August 28. Effects of continued pyrexia manifest.

August 29. Left cheek swollen and dull red in color. On right side of scalp a palm-sized plaque, infiltrated, slightly elevated, dusky red with abrupt, gyrate borders. Across upper half of thorax, erythematous, infiltrated area similar to scalp lesion, but twice as large.

September 1. Temperature 102. Pulse 110, unequal in size and intermittent every three to eight beats. Nourishment thus far well taken and retained.

September 4. Loss of strength more evident every day. Nourishment retained, but patient obliged to be fed by the nurse. Several small bed sores apparent on back over scapulæ and sacrum. These are mere superficial breaks in the skin. Beginning dullness in right lung with bronchial breathing and coarse, moist râles. R Air mattress. Alcohol baths, wash of carbolic acid, lime water and zinc. Powder of zinc.

September 6. General light bronze hue to skin. All nodules gone, leaving at their sites rounded maculations of a lighter color than the surrounding surface. Skin of extremities moderately thickened with coarse furfuraceous desquamation. Decubitus slightly more marked. R Digitalis 1-40. Blood count:—Reds comparatively normal. Whites 36,000. Neutrophils 70 per cent., small lymphocytes 23 per cent., large lymphocytes 6.5 per cent., eosinophils 0.5 per cent.

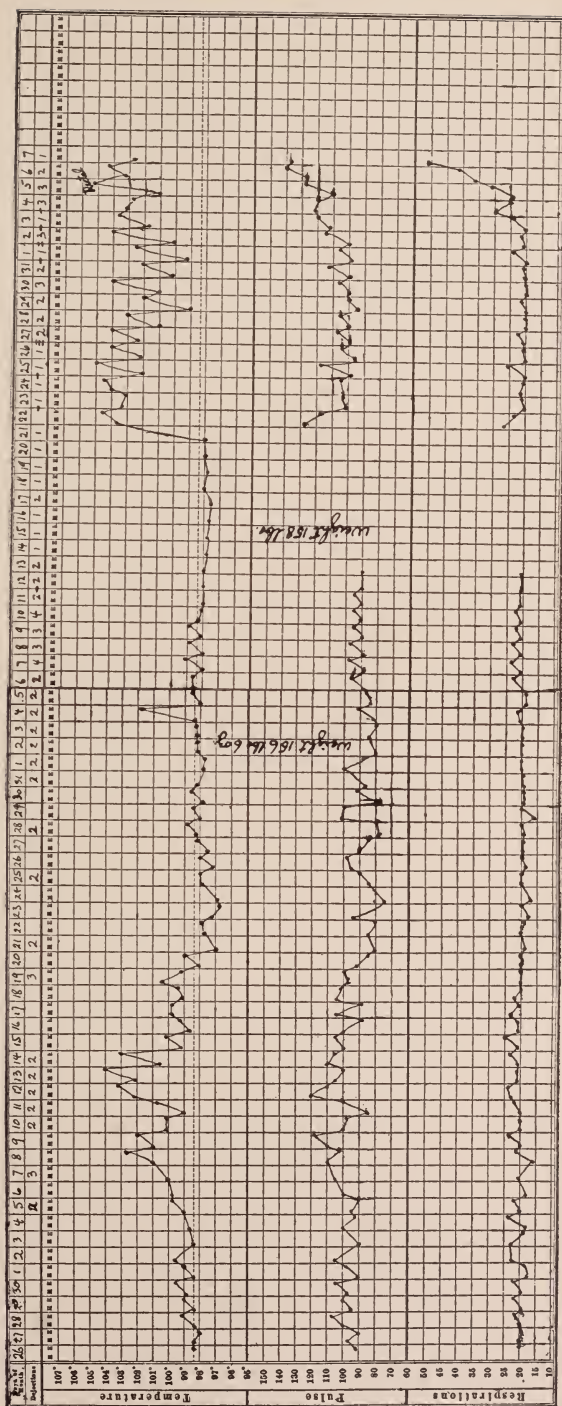
September 7. Temperature 105.2. Pulse 130. Respiration 40. Abdomen moderately swollen and tympanitic. At base of right lung flatness and absence of respiration (atelectasis). Flatness not changed by position. Diffuse bronchial respiration in both upper lobes. Right base probably cut off by occlusion of bronchus. R Strychnine 1-30, subcutaneously. Oxygen. Skin presented a general bronzing and a disappearance of all tumors. Death at 1:50 P. M.

AUTOPSY

by Dr. Oscar Richardson, of the Clinico-Pathological Laboratory of the Massachusetts General Hospital.

September 8, 1905. Nineteen and three-fourths hours post mortem.

Anatomical Diagnosis.—Mycosis fungoides. Fibrino-purulent pleuritis (right). Hyperplasia of the spleen. Hypertrophy and dilatation of the heart. Streptococcus septicæmia.



The body of a man, fifty-two years of age, 172.5 c.m. long, well developed and fairly well nourished.

Head. Not examined.

Trunk. The skin generally presents a peculiar brownish, glazed appearance and shows here and there small superficial losses of its substance and in many places grayish patches covered with films of ointment-like material. In places, on handling the body, rather large superficial sheets of skin come off, leaving raw-looking surfaces.

In the anterior abdominal wall, just above the pubes, there is an irregular area of gray-white thickening in the skin several centimeters in greatest dimension. The surface of this area is rather irregular and slightly elevated above the level of the surrounding skin. On section the grayish white tissue infiltrates slightly into the subcutaneous tissues. To the touch the wall of the scrotum is resistant and feels thickened.

On section subcutaneous fat in moderate amount. Muscles not remarkable.

The peritoneal cavity is free from fluid. The peritoneum is smooth and shining. The appendix not remarkable. The anterior margin of the right lobe of the liver is at the costal border in the right mammillary line.

Diaphragm. Right side, fourth rib; left side, fourth interspace.

The lungs are free. The bronchial lymphatic glands are not remarkable. The left pleural cavity contains no excess of fluid. The right pleural cavity contains a moderate amount of foul, opaque, purulent fluid material, supporting small flakes and masses of yellowish soft, fibrinous matter. On section the left lung shows nothing remarkable. The pleura of the lower half of the lung shows numerous smaller and larger masses of soft, yellowish, fibrinous material. On section the tissue of the upper and middle lobes is not remarkable. The tissue of the lower lobe over a considerable area is dark red in color and is infiltrated with a considerable amount of bloody fluid material. There is no evidence of consolidation. The bronchi leading to this lobe contain a considerable amount of soft, sloppy, fibrinous, purulent material which rests in some of the bronchi as flattened, shaggy masses.

Pericardium not remarkable.

Heart 386 grams. The myocardium on section is pale, cloudy and rather flabby. The left ventricle wall measures 12 m.m., the right 3 m.m. A teased preparation of the myocardium shows no evidence of increase of fat. The columnæ carneæ are fairly well marked. The mitral valve circumference 10 c.m., the aortic 7 c.m., the tricuspid 13 c.m. The valves are not remarkable. The cavities are of full size. The coronary arteries are free. The intima presents a few small fibrinous patches. The aorta is smooth.

Liver. 229.5 grams. On section the tissue is pale, homogeneous and rather soft. No stones in the gall bladder. Bile ducts free.

The pancreas on section is not remarkable. The duct of Wirsung is free.

The spleen weighs 251 grams and on section shows a pale, fairly firm structure with well marked follicles.

Adrenals not remarkable.

Kidneys. Combined weight 467 grams. The organs are large. The capsules strip, leaving a smooth, pale surface. On section the tissue is rather soft. The markings are retained and the cortex measures 7 m.m. The section surface is pale and cloudy. The glomeruli are faintly visible.

Ureters free. Bladder, prostate, seminal vesicles and testes on section show nothing worthy of note.

The œsophagus, stomach and intestines on section present no lesions. The retro-peritoneal lymphatic glands along the lower portion of the aorta and about the iliac vessels on each side are somewhat enlarged and on section their tissue is pale, cloudy and only fairly firm.

BACTERIOLOGICAL REPORT.

Cultures on blood serum.

Heart: Profuse growth of the streptococcus pyogenes.

Liver: Profuse growth of the streptococcus pyogenes. A few colonies of a colon-like bacillus.

Spleen: Profuse growth of the streptococcus pyogenes.

X-RAY EXPOSURES IN DETAIL

The application of the Roentgen rays was under the supervision of Mr. Walter J. Dodd, Director of the X-ray Laboratory of the hospital. The machines used were six inches and twelve inches in coil. About one-third of the exposures were given on the six-inch coil, which has a capacity on low tube of 0.5 milliamperes. The remaining two-thirds were given on the large coil with the capacity of 0.75 to 1.25 milliamperes.

| PUBES | ARMS and SIDES | BACK | LEGS |
|----------------------|------------------------|----------------------|----------------------|
| DIS- TIME TANCE | DIS- TIME TANCE | DIS- TIME TANCE | DIS- TIME TANCE |
| June 29-10 m. 10 in. | July 17-10 m. 10 in. L | July 19- 5 m. 10 in. | July 26-10 m. 10 in. |
| July 1-10 " 10 " | " 19-10 " 10 " R | " 21- 5 " 10 " | " 28-10 " 6 " |
| " 3-10 " 10 " | " 21- 5 " 10 " L | " 24- 5 " 6 " | Aug. 1- 5 " 6 " |
| " 5-10 " 10 " | " 24- 5 " 10 " R | " 26- 5 " 6 " | " 2- 5 " 6 " |
| " 7-10 " 10 " | " 26-10 " 5 " L | " 31-10 " 6 " | " 6-10 " 6 " |
| " 10-10 " 10 " | " 28- 5 " 6 " R | Aug. 1- 5 " 6 " | " 9-10 " 10 " |
| " 12-15 " 10 " | Aug. 2- 5 " 6 " L | " 2- 5 " 6 " | " 14-10 " 6 " |
| " 13-10 " 10 " | " 4- 5 " 6 " R | " 7-10 " 6 " | " 16-10 " 6 " |
| " 14-15 " 10 " | " 5- 5 " 6 " L | " 9-10 " 6 " | " 18-10 " 6 " |
| " 17- 5 " 10 " | " 8-10 " 6 " R | " 18-10 " 6 " | " 19-10 " 10 " |
| " 24-15 " 6 " | " 10-10 " 6 " L | " 19-10 " 10 " | |
| " 26-10 " 6 " | " 14-10 " 6 " R | | |
| " 28-10 " 6 " | " 17-10 " 6 " L | | |
| " 31-10 " 6 " | " 19- 5 " 6 " R | | |
| Aug. 1- 5 " 6 " L | " 21- 5 " 10 " L | 80 minutes | 90 minutes |
| " 2-10 " 6 " | | | |
| " 4- 5 " 6 " | | | |
| " 6-10 " 6 " | 110 minutes | | |
| " 8-10 " 6 " | | | |
| " 10-10 " 6 " | | | |
| " 16-10 " 6 " | | | |
| " 18- 5 " 10 " | | | |
| " 21- 5 " 10 " | | | |
| 220 minutes | | | |

Total time of exposures eight hours and twenty minutes in the space of fifty-four days.

On examining the clinical chart it will be noted that there was a progressive rise of temperature from July 3 to July 8, when the thermometer registered 102.8° F. Then after a two-days' remission another progressive and higher rise until July 13, when the fever reached 104° F. On comparing these dates with the X-ray table of exposures it will be seen that the patient was receiving tri-weekly what would be called very moderate doses limited to the pubic region, and examining the clinical notes for this same period one finds nothing of any interest recorded. At the time, this elevation of temperature was interpreted as evidence of a possible mild septic absorption from the open pubic ulcerations.

PATHOLOGICAL EXAMINATIONS

On July 3d a piece was excised from the pubes in the tumefied area contiguous to the largest ulceration. Post mortem, pieces of tissue from the same area were examined, both from the former

tumefied portion and from the interlying healed ulcerations. These were all hardened in Zenker's fluid, imbedded and cut in paraffin and stained after various methods.

THE ORIGINAL TUMOR

Before the application of the X-rays a piece of tissue was excised from the pubic region adjacent to the largest ulceration and the sections present the following characteristics:

Epidermis. The rete mucosum is slightly hypertrophic. The germinate layer is normal, but as we go upwards the cells become œdematous and stain lightly, and the epithelial interspaces are enlarged. The nuclei at first are clear and vesicular, but as we approach the upper strata the effects of œdema are more emphasized. Nuclei tend to disappear or to be surrounded by a clear space. Still more superficially the cells appear longitudinally flattened and entirely a-nuclear. Throughout the rete leucocytes are present, for the most part between the cells. The stratum granulosum and the stratum lucidum are absent; the stratum corneum is present, but contains nuclear debris.

Corium. The papillary layer is œdematous, contains dilated vessels and shows a moderate infiltration of lymphocytes. All of these structures lie in a very delicate meshwork. Below the papillary layer the corium is deeply invaded by the cellular growth. These cells consist almost entirely of large, vesicular, round, oval or irregular nuclei, containing a few chromatin granules, and surrounded by a minimum, almost undiscernible ring of cytoplasm. Mitotic figures are numerous. The reticular supporting skeleton of the corium is so very slight that it plays but a minor part in the histological structure of the tumor. In certain areas of the sections there are masses of very small mononuclear leucocytes, but as they appear in close proximity to the ulcer they are probably purely inflammatory in nature.

Blood vessels are numerous and, as a rule, tend to run vertically toward the surface of the skin. There are others, however, lying in irregular directions and these for the most part are dilated. The nuclei of these capillaries are mostly elongated and normal, but in some instances appear swollen and vesicular, yet stain clearly and sharply. The larger, dilated vessels contain a few leucocytes with one or more nuclei, while around them collagenous fibers, as a rule free from nuclei, appear in greater abundance than elsewhere in the sections. The dilated lymph spaces appear as elongated passages or square-shaped lacunæ, containing fine, coagulated, granular masses.

The elastic structures are wholly wanting in the papillary layer.

Deeper down in the corium a few, scattered fibrils are present, for the most part short, thick and straight. A few, delicate, slightly wavy fibrillæ can be seen, always in minimum numbers.

THE TISSUES POST MORTEM, AFTER EXPOSURES TO THE X-RAYS .

A. Skin lying between the healed ulcers.

Epidermis. Under the low power of the microscope the elements of this layer appear rather blurred and indistinct. Under the high power, however, this diffuseness seems to owe its appearance to the great abundance of the rete nuclei, which occur so compactly that cell divisions are mostly obscured. The rete sends down numerous projections into the corium. On close inspection the palisade layer is ill-defined, its vertical, elongated cells being replaced by round, œdematous (?) nuclei. Above this layer the nuclei appear normal in structure, but comparatively increased in numbers, while the layer as a whole is thin and soon gives place to incompletely developed, nucleated, horny cells without the usual intervening stages of granulation. The horny layer is, nevertheless, thin, but not compact and shows in its lower strata vesicular nuclei. More superficially the nuclei become horizontal and the cells structureless. Leucocytes are not present in the epidermis.

Corium. The papillary and sub-papillary layers present a delicate reticulated structure, consisting of frail, a-nuclear collagenous elements supporting many large, coarse, ochre-colored pigment granules; numerous delicate, dilated capillaries with swollen nuclei; and abundant large, vesicular lymphocytes. In the deeper layers cellular elements recede markedly in numbers and in size and collagen appears in comparatively normal amount, but it is essentially a-nuclear. Even here lymphocytes are everywhere visible, but in very moderate quantities, and the cells are of the small variety. This cellular invasion presents a marked contrast with the solid, compact mass, obscuring practically all other elements, presented in the same pubic region before its many exposures to the X-rays.

The appendages of the skin are now evident and here and there hair shafts and sweat coils and their efferent ducts are to be noted. These structures are to all appearances normal, but the presence of small lymphocytes around them and in the neighborhood of the deeper vessels is more patent than elsewhere below the sub-papillary layer.

The panniculus adiposus is present and presents no abnormalities.

Elastin is present in remarkable abundance, except in the papillary and sub-papillary layers. Here it is practically wanting, but

PLATE XVIII.—To Illustrate Dr. Charles J. White's Article.



PLATE XIX.—To Illustrate Dr. Charles J. White's Article.



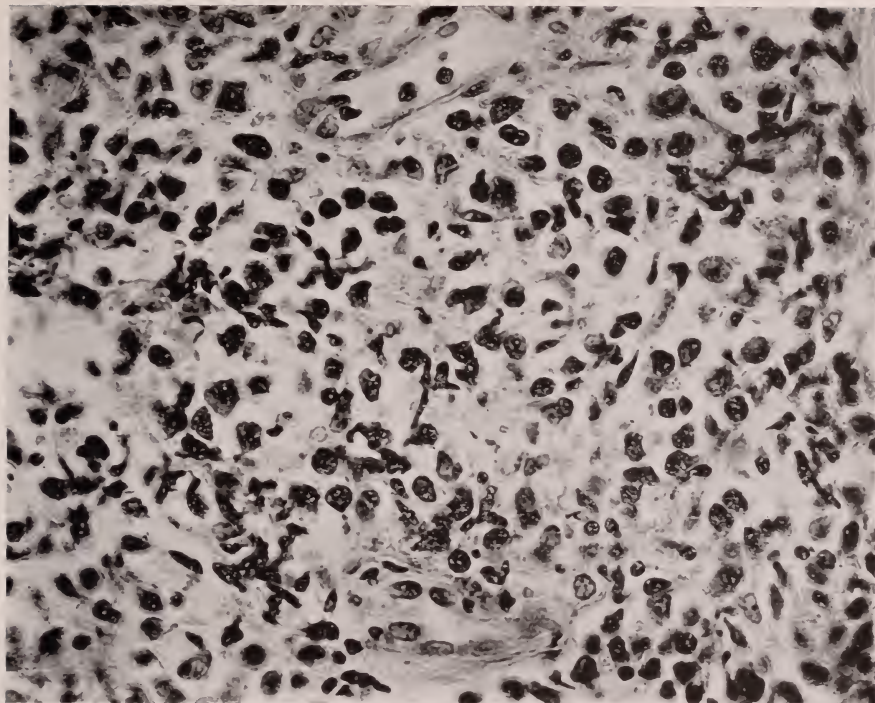


FIG. 2.

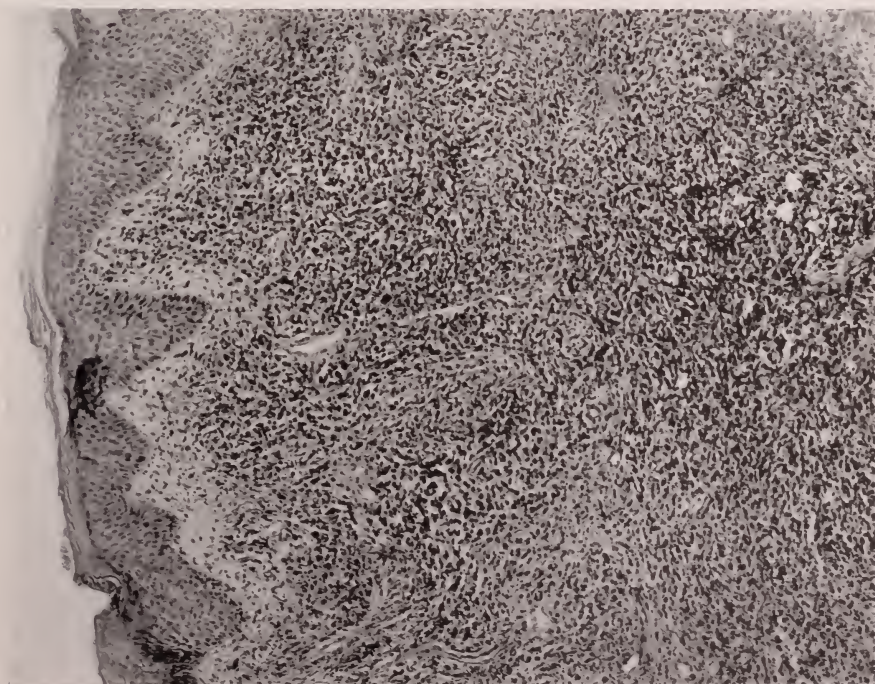


FIG. 1.

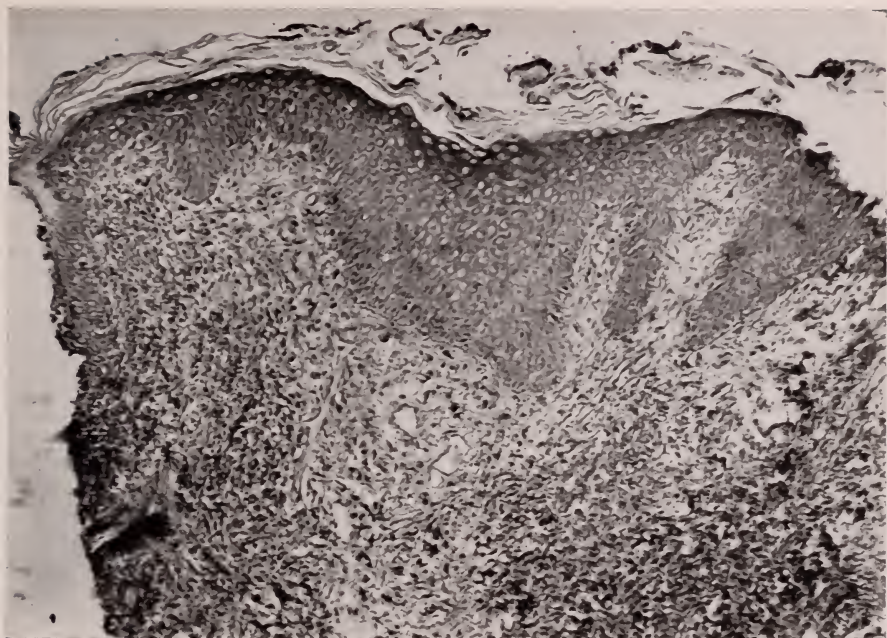


FIG. 3.



FIG. 4.

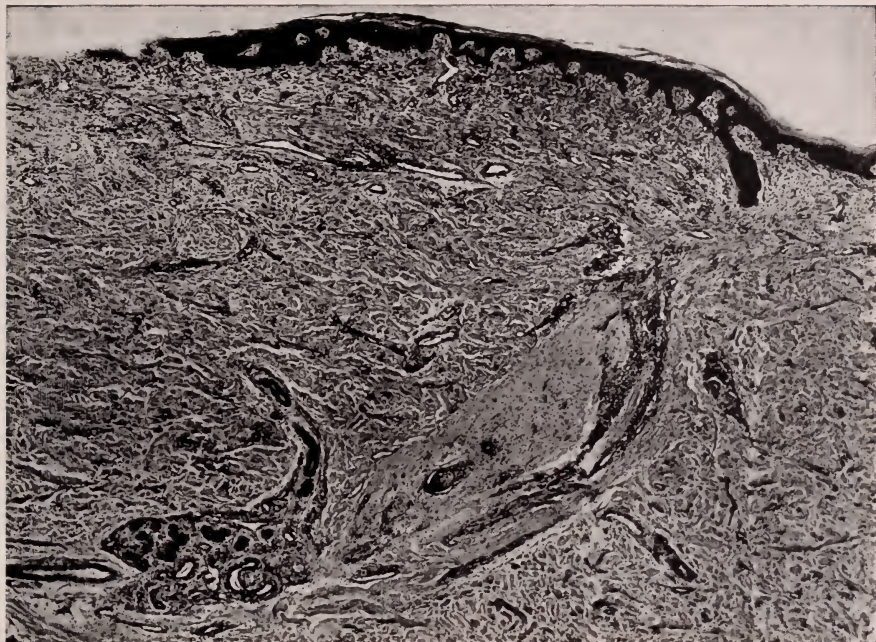


FIG. 5.



FIG. 6.

throughout the deeper layers of the corium, alongside the hair follicles, around the sweat glands and within the vascular walls the elastic fibres appear in great quantities. This superabundance of elastin is noteworthy compared with its almost total absence in the same region before its exposure to the X-rays. Some authors have alluded to this increase of elastic tissue subsequent to the exposure of the skin to X-rays.

B. The Healed Ulcer.

A piece was excised from one of the healed ulcers of the pubic region. Macroscopically this appeared as a flat, smooth, soft, very white tissue surrounded by the healed bronzed skin which had, under the influence of the X-rays, given place to the former tumefied masses.

Microscopically, the following conditions are present:

Epidermis. The layer as a whole, is somewhat thinned and flat, although on either side of the central point of the cicatrix it soon begins to form atypical, rudimentary interpapillary downgrowths into the corium. The rete is composed of a poorly developed germinate layer with vesicular nuclei containing well-marked nucleoli. Above this layer the cells are less typically shaped, stain poorly and show no prickles. These three or four rows soon give place to more horizontally lying, flattened nuclei which apparently take the place of the granular cells and soon are replaced by structureless horny cells which, for the most part, are a-nuclear, but contain here and there débris.

Corium. The papillary layer is absent. The sub-papillary layer is also not differentiable from the subjacent strata. Thus the connective tissue is to all intents and purposes uniform in structure and consists of a comparatively delicate, horizontal meshwork containing a relatively small number of poorly developed nuclei. Between the bundles of collagen appear a few, evenly distributed small lymphocytes, but farther away from the central point of the scar occasional large clusters of lymphocytes are present. In the upper layers of the corium small dilated vessels can be seen with normal endothelial linings. Deeper down, however, the veins appear with somewhat thickened walls and swollen endothelial cells. The sweat coils are poorly developed and their structure is very imperfect. The elastic tissues are also in greatly diminished amounts. In the upper layers of the corium elastin is seen only about the vessels, but deeper down it appears at irregular intervals as short, rather straight fibrillæ amidst the collagenous bundles. In the deep vessel walls, however, it again assumes its normal delicate, tortuous structure.

LITERATURE

The literature upon the toxic effects produced by the X-rays is rather meagre and I quote all the references which I have been able to glean from various sources.

Sterne¹ reports a case of toxæmia simulating acute sepsis. There was enormous enlargement of many glands which disappeared entirely under the influence of X-rays, but with the subsidence of the huge spleen and other glands, the septic condition developed, the patient became comatose, "convulsions set in and he died with every mark of violent sepsis, not only clinically but also microscopically, demonstrable through blood changes."

Pusey² records the appearance of a slight dermatitis and symptoms of toxæmia in a case of lymphadenoma after fifteen exposures to the rays. With cessation of the treatment the toxic symptoms disappeared, but were again in evidence after a renewal of the exposures.

Holzknacht³ refers to three cases of fever and scarlatiniform dermatitis following exposures to Roentgen rays and mentions fever up to 40° C. as a very common sequela. He notes in addition concentrated urine and a universal or local exanthem, consisting of a small, pruriginous, maculo-papular dermatitis, which exfoliates in a week and disappears after the lapse of a month or more. In conclusion, he states that the symptoms are due to the production of toxic material in the vicinity of the exposed skin induced by the specific irritant which leads to cell degeneration.

Kienböck⁴ relates three similar cases in his experience.

J. Hall Edwards⁵ writes that he is convinced that in certain cases of internal cancer the application of X-rays does much good; on the other hand, beyond the relief of pain, the X-rays may do a large amount of harm, and death frequently has resulted from toxæmia, the result of the absorption of poisonous products set free by the rays.

Mr. Dodd of the Massachusetts General Hospital holds similar views and has told the writer that he can recall not a few instances in which people suffering from extensive internal and external carcinoma have gone to pieces very suddenly after being subjected to intensive X-ray exposures.

Edwards further states that as a means of overcoming this danger one should try the experiment of cutting down and draining a tumor after exposures to the rays, with the hope of combatting the absorption of poisonous products.

Allen⁶ says that grave symptoms may arise with disintegra-

tion of large tumor masses under the influence of the X-rays and we should watch the circulation and temperature carefully and stop treatment as soon as any alarming symptoms arise. And again, he states that at times we observe a toxic, febrile condition consisting of a high temperature with remarkably slight general febrile symptoms and a feeling of well-being which differentiates it from general toxæmia with or without exanthemata. This freedom from the usual accompaniments of marked hyperpyrexia was, for two or three days, one of the striking and remarkable features of the case now under consideration.

Gibson,⁷ in speaking of the use of the X-rays in tubercular and malignant diseases, calls attention to the fact that in all deep and internal malignant conditions, especially where the disease is extensive, we have a septic state produced by the rapid disintegration of the diseased tissues of the tumor, the detritus being thrown into the circulation faster than the excretory organs can eliminate it.

Coley,⁸ while describing the treatment of sarcoma with mixed toxins and X-rays, says that so far as danger is concerned it sums itself up into a judicious use of the agents so that too much of the neoplasm may not be liquified at once and that unless this precaution is taken it is quite possible to make the patient extremely sick from septic absorption.

Nielsen⁹ reports four cases of septic absorption and death following X-ray treatment. The first case was one of cancer of the breast followed by ulceration, toxæmia and death. The second, a sarcoma subsequent to a kick in the groin. After two months' treatment the patient died from toxæmia. The third case was one of epithelioma of the face which made no favorable response to treatment, but succumbed to toxæmia. The fourth was a carcinoma of the uterus with a similar fatal termination. From such experiences Nielsen learned to be on the lookout for toxæmia in people of advanced age and in cases of recurrent growth.

Dock,¹⁰ in referring to the treatment of leukæmia by X-rays, says toxic symptoms have been noted in several cases, but toxic symptoms are so common in this disease that it is impossible to tell how much the symptoms observed are dependent on the Roentgen rays.

Haret¹¹ records symptoms of toxæmia in three patients afflicted with cancer of the breast after treatment with X-rays. In the first case after four sessions (16 H units) the cutaneous nodules began to fade away, but the patient suffered from vertigo, palpitation, complete anorexia and insomnia, and some rise of temperature. Cessation of the exposures for ten days freed the patient from these

toxic symptoms. After five séances (17 H units) the second patient developed violent headache, palpitation, loss of appetite, insomnia and extreme prostration. These distressing conditions subsided after withdrawal of the rays for two weeks, but began again on a resumption of the exposures. The third example occurred after four sittings (14 H units) and consisted of violent sickness, great lassitude, vertigo, anorexia, paroxysmal attacks of cephalalgia and precordial oppression.

In all of these cases the non-ulcerated nodules decreased in size after the exposures and Haret was led to believe that these symptoms were in reality toxæmic accidents. He would, in future, when treating non-ulcerated tumors of any size, produce a surgical wound on the skin to allow the escape of toxic matter.

Linser¹² finds that the X-rays destroy the leucocytes, especially the lymphocytes, in the circulating blood. As a result of this destruction a leucotoxin is produced and if a serum containing this leucotoxin be injected into an animal a destruction of the leucocytes will follow. With the leucotoxin it is possible to immunize against leucotoxin. The rays may in an indirect way produce nephritis, but do not affect the red blood cells or the hæmoglobin.

Franklin,¹³ in speaking of the dangers of the X-rays, says that the general cachexia in cases of cancer treated by the rays has been too often remarked to require repetition and the explanation—the absorption of the toxic products of cancer degeneration into the organism—as given by Holzknecht, is perhaps the correct one.

Lyle¹⁴ (quoted by Haret in *Le Radium*, 1905, p. 314), believes that no one is justified in treating a tumor by X-rays unless drainage is established, and for this reason he does not consider it right to treat internal cancers by this method. Lyle bases these strong assertions on the fact that he has many times observed phenomena of intoxication which have sometimes been attended by the death of the patient.

Finally, allow me to quote from two personal letters which have been received from Dr. W. A. Pusey and Dr. W. B. Coley.

Dr. Pusey says: "I have constantly had this subject of toxæmia in mind because it has been broached many times. Personally, I have seen no toxic symptoms, except rheumatic pains, which could be attributed to too rapid absorption of neoplasms, and I have witnessed enormous tumors disappear under the influence of X-rays. Furthermore, I have not seen any case in the practice of other men

with the exception of a patient afflicted with extensive lupus vulgaris of the face and body. The areas were vigorously exposed to the rays and there was an acute X-ray reaction which rapidly disappeared, however. With this dermatitis a violent systemic reaction developed with a temperature of 105° F., a condition strongly suggestive of a tuberculin reaction. This toxic condition developed three times after renewed exposures to the rays and the third time proved fatal. I was for a long time sceptical as to any such toxæmia, but I think now that there is but little doubt that it may occur."

Dr. Coley states that in his own experience he knows of no case parallel to that which forms the subject of this present communication; nor is he cognizant of any similar case, "unless it be a patient who came under his care with a sarcoma of the mastoid region which he referred to Dr. Morton. The tumor disappeared rapidly under X-ray treatment, but the patient soon became cachectic and emaciated, and died in two to three months, death being due, he believes, to the slow absorption of broken down tissue."

From this résumé of the literature it will be seen that no instances of fatal toxæmia in cases of mycosis fungoides exposed to the Roentgen rays have been reported up to this time, but the study of this same literature reveals the fact only too clearly that henceforth X-ray therapists must conscientiously bear in mind not only the hitherto well-known danger of dermatitis and atrophies, but the now clearly demonstrated and greater calamity of toxæmia and death.

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DESCRIPTION OF PLATES.

PLATE XVIII. Shows the pubic region some days after the beginning of the X-ray exposures. Also shows the already partial healing of the left ulcer and the thick folds in the left groin.

PLATE XIX. Shows the general distribution of the tumors on the back and arms.

PLATE XX. Fig. 1. Before X-ray exposure. Shows absence of stratum granulosum and parakeratosis of horny layer. Shows depth and character of cellular invasion and absence of all structures in the corium except blood vessels and cells.

Fig. 2. Before X-ray exposures. Pubic region. Shows the nature of the cellular growth, *i. e.*, lymphocytes, large and small. Shows the minimum amount of collagen present. Shows the dilatation of the vessels. (Histologically a round cell sarcoma.)

PLATE XXI. Fig. 3. Pubic region before exposure to the X-rays. Shows total absence of elastin. (Acid orcein.)

Fig. 4. Pubic region after exposure to the X-ray. Shows reappearance of elastin—perhaps an increased amount. (Acid orcein.)

PLATE XXII. Fig. 5. Pubic region after exposure to the X-rays. (Pigmented space between scars.) Shows the atrophy of the epidermis and the marked disappearance of the lymphocytes except in the sub-papillary layer and around the vessels, sweat glands and deep follicular region. Shows the reappearance of sweat glands and an incipient hair.

Fig. 6. Pubic region after exposure to the X-rays. (Non-pigmented scar.) Shows the atrophic epidermis and the dense fibrous tissue very free from the former intense cellular invasion.

DISCUSSION.

DR. HYDE said he had listened to both these papers with much interest, and he felt under obligation to the writers for the careful way in which the cases had been reported. His object in rising was to refer to a case which was the only one of mycosis fungoides that Dr. Montgomery and himself had had the opportunity of treating with the X-ray, and the result of the treatment, taken in conjunction with that obtained by Drs. White and Burns, would lead us to believe that much depended upon whether the treatment was begun in the fungoid or pre-fungoid stage of the disease.

Dr. Hyde said that the case he had in mind was reported by their laboratory assistant, Dr. Oliver S. Ormsby, in the December (1903) issue of *Medicine*, under the title of a "*Preliminary Report in the Case of a Patient in the Practice of Drs. Hyde and Montgomery, in the Pre-fungoid Stage of Mycosis Fungoides, Treated with Radiotherapy.*" At the time treatment was instituted the condition of the patient, who was a woman, forty-six years old, was as follows: She was fairly well nourished, though she had lost somewhat in weight, and her general health was not impaired. The patches, which were numerous and generally distributed, varied in size from that of a dime on the brow to that of a palm over the right hip. These patches were oval or rounded, slightly elevated, reddish in color, scaling, well defined, and dry. No tumors or ulcerations were present.

The method of treatment pursued was to select ten or twelve areas, and treat half of them on each alternate day until a given area had

received about ten treatments. Seven periods of treatment in all had been pursued to date. It was interesting to note that every lesion treated had disappeared; that no recurrence had taken place in a treated area, although many new lesions had developed during the treatment; that always within a month after suspension of treatment, the lesions treated had entirely cleared up, leaving only slight pigmentation; and that several lesions not directly exposed to the rays disappeared during the treatment. The pruritus or burning sensations were usually relieved after the third or fourth treatment. While under treatment the patient gained thirty pounds in weight.

Dr. Hyde said that the above report was made in November, 1903. Since that time eight periods of radiotherapy had been given, four of which were exactly the same as to technique, results, etc., as those recorded by Dr. Ormsby. The last four periods had consisted of four treatments of each individual lesion, instead of six, and twenty-four lesions were treated in place of twelve, a stronger current and larger coil being employed. Early in December, 1905, all lesions had been treated, and all excepting one had disappeared, and this last one was now clearing up. As during the first eighteen months of treatment new lesions constantly kept appearing, so they did during the last two years. At the present time, the patient had less cutaneous manifestation than at any time since the disease began. Her general health was good. Notwithstanding the large number of lesions removed, new ones were constantly appearing, so that twenty or thirty had always been present up to their practically complete disappearance at the present time.

Two important points in connection with this case were: First, that no lesions had recurred in the regions treated by radiotherapy; and, second, the very excellent condition of the patient at the present time, after the disease had lasted eight years.

Dr. S. POLLITZER inquired why the death of Dr. White's patient had been ascribed to toxæmia? The autopsy findings showed streptococci in the blood, and in view of the quite frequent occurrence of death in the course of mycosis fungoides from septic infection from without, derived through the skin lesions, the speaker said he wished to ask why Dr. White presented his case as one of toxæmia rather than one of simple streptococcus septicæmia?

Dr. GOLDENBERG asked Dr. White if blood cultures were made during life.

Dr. WILLIAM A. PUSEY said that Dr. White, in his paper, had referred to one or two cases that had come under his care. One was a case of lymphatic leukemia in which the patient had a febrile reaction after each X-ray exposure, but she had also had several such attacks previous to the use of the ray, so that it could not be definitely assumed that the application of the ray had given rise to the temperature reaction.

Dr. Pusey said that in the case of a man with an extensive lupus

vulgaris who had been exposed to the X-ray by another physician, the treatment was followed by a violent dermatitis, accompanied by an acute febrile reaction. He had subsequently learned, upon inquiry, that those attacks had been repeated, and that death had occurred during the third one.

The speaker said that so far as his personal experience went, the phenomena mentioned by Dr. White were almost unknown. He had recently had a case of mycosis fungoides under his care, and the manner in which the lesions disappeared under the application of the X-ray was little less than magical, and their disappearance was not followed by any untoward constitutional symptoms. It seemed to him that if these symptoms could be looked for at any time, it would be in cases of leukæmia and conditions of that nature, where the effect of the X-ray was often very striking. The speaker said he could recall within the year three cases in which the spleen was enlarged to such an extent that it literally filled the abdomen. One was a case of splenic leukæmia, with a white cell count of 240,000, and a spleen extending from the pubes below, to a point where it pressed on the heart above, and well beyond the middle line. This enlarged spleen rapidly disappeared under the influence of the X-ray, with coincident improvement in the condition of the blood, the decreased leucocytosis continuing *pari passu* with the diminishing size of the spleen. He also recalled two other cases of splenic leukæmia with similar results. Also a case of Hodgkin's disease, with an enormously enlarged mass of glands on either side of the neck. Rapid disappearance of the glandular enlargements occurred under the influence of the X-ray without any evidence of toxæmia.

The report of cases like the above, Dr. Pusey said, of course did not establish the fact that toxic symptoms might not occur by the rapid dissipation of a tumor under the influence of the ray. On the contrary, he was willing to admit that such symptoms did develop at times, but his personal experience seemed to indicate that their occurrence was of extreme rarity. This fact did not lessen the value of the contribution to the subject made by Dr. White.

DR. GEORGE T. ELLIOT said he knew very well the case reported by Dr. Jackson. In 1902 the patient had come to consult him without giving any statement as to her previous medical care. He made at the time the diagnosis of the eczematous and lichenoid stage of mycosis fungoides. He wrote to her physician and advised the use of chaulmoogra oil, which was taken for some months in large doses. What had relieved her externally most of all was a solution of anaesthesine in cod liver oil. He saw her again the following autumn, when there seemed to be some improvement, and at that time he advised the use of hypodermic injections of eucodylate of sodium. Subsequently, he wrote to her attending physician, suggesting the use of the X-ray, as good results from it had at that time been reported by Dr. Jamieson in the treatment of this affection, and in 1904 he learned that the woman was

entirely free from manifestations of the disease. In the spring of 1905 there was a recurrence, and as it was impossible for him to visit the patient in her home, he referred her to Dr. Randolph B. Carmichael, of Washington, D. C., who reported that he found an extensive dermatitis, apparently due to the use of the X-ray.

Dr. Elliot said the point in the case that interested him particularly was that the patient had died of chronic diarrhœa. He could recall several cases of mycosis in which the fatal result was due to the same cause. In a case of Dr. Fox's, seen some seventeen years ago, in the Skin and Cancer Hospital, the patient, a woman, also died of a sudden, acute diarrhœa. Another patient who was in the hospital about the same time died also in the same way, and there were similar ones, he had seen, and many such were on record. In Dr. Fox's case, he secured a post mortem, and examined sections of the various organs microscopically, and he found metastases in the liver, in the spleen and lungs. In the other cases he had had no autopsy was obtained. The question naturally arose, whether this terminal diarrhœa was due to a metastasis or not. In the case reported by Dr. Jackson, there was also the history that for two years before death the patient had an abdominal tumor, which was supposed to be ovarian. Her condition was such, however, that an operation for its removal was not deemed advisable. Whether or not it was a metastatic tumor is of course open to question. Metastases in the course of mycosis fungoides have been reported only lately by Finger as occurring in the brain and in other organs of the body.

DR. GEORGE H. FOX said he had under observation at the present time at the Skin and Cancer Hospital a woman who was in the tumor formation stage of mycosis fungoides, and who, as the result of the X-ray treatment, was to-day comparatively well. It could not be claimed positively, however, that her immunity from symptoms at the present time was due entirely to the X-ray, as it was a well known fact that this disease showed periods of remission. At the same time, the consensus of opinion was that these patients were greatly benefited by the X-ray treatment. Personally, under this method of treatment, he had seen the itching disappear in an incredibly short space of time, and the same was true of the tumor formation, so that he had become impressed, almost against his will, by the fact that the X-ray treatment of mycosis fungoides was in the great majority of cases followed by excellent results, although this was not invariably the case.

DR. CHARLES W. ALLEN referred to a case of mycosis fungoides that had been referred to him by Dr. Sherwell for X-ray treatment. The exposures were given, at irregular intervals, for a period of nearly two years, and when Dr. Allen last saw the patient, about six weeks ago, he was almost free from lesions. The case was recognized and the X-ray treatment was begun in the pre-mycotic stage; there had never been any tumor development, and he had been fairly free from itching or bad symptoms during the entire course of his treatment.

DR. SAMUEL SHERWELL said that about six months ago, when he had last seen the patient referred to by Dr. Allen, he was very much improved. In that case the pigmentation was peculiar, the lesions being almost a cerulean blue. They would disappear largely in the summer, and then come out again. Under the X-ray treatment by Dr. Allen, an improvement almost amounting to cure was apparently established which was still present the last time he had seen the patient. The trouble in the case was certainly mycosis fungoides, early stage.

DR. L. DUNCAN BULKLEY said that at the Skin and Cancer Hospital they had had perhaps half a dozen of these cases, and in three that were observed there during the past two years, the X-ray treatment had been given. The first of these cases was that of a man, about 45, who was so much benefited by the treatment that he was able to leave the hospital and had returned to his work. The second patient was a woman who had been an inmate of the hospital for two years, and who died about six or eight months ago. In her case the itching had been so distressing that her complaints regarding it would disturb the inmates of her ward night and day, and the relief afforded to this symptom by the X-ray was simply incredible. This patient developed some febrile disturbance, which for a time was ascribed to the X-ray treatment. She finally died of exhaustion.

The third case was a man who remained in the hospital for about eight months. Both groins were filled by masses of enormous buboes, which melted away entirely under the influence of the X-ray. During the course of their disappearance, he had several attacks of toxæmia, from which he recovered. He left the hospital for a time, and upon his return he had a number of ulcerative lesions on the scalp, which healed under the X-ray in a surprisingly short space of time. The treatment also entirely relieved his itching.

When this patient left the hospital, he was by no means well, and Dr. Bulkley expressed the conviction that while the X-ray relieved the symptoms of mycosis fungoides, the disease steadily progressed toward its unfavorable outcome.

Dr. Stelwagon said that while the case of mycosis fungoides reported by Dr. White and those cited by him went to indicate that the rapid dissemination of a growth under the influence of the X-ray might lead to fatal toxic symptoms, he thought that such a conclusion was still open to question. In almost every case of mycosis fungoides, death was due to septicaemia, which was most apt to occur during the exacerbations of the disease, but was also sometimes preceded by a subsidence of the cutaneous lesions.

Dr. Stelwagon said that in a case of mycosis fungoides that was now under his observation, there had been some improvement under the X-ray treatment, which was only resorted to a few weeks ago.

DR. LOUIS A. DUHRING said he did not think the facts set forth in Dr. White's paper warranted the conclusion that the patient's death

was the result of the X-ray treatment. He said his experience with mycosis fungoides dated back many years, and his recollection was that in or about 1879 he reported probably the first case that was placed on record in this country. At that time, the disease was practically unknown here.

In a case of mycosis fungoides that had been under his observation for the past five years, large plaques formed about three years ago which could not be controlled by treatment. The X-ray was then applied, and the exposures were continued for a month or longer, first on one patch, then on another. The result of this treatment was negative, and the patient returned to his home in the south, where previously he had been under the care of several physicians, who had given him considerable quantities of arsenic by the mouth without any benefit. Dr. Duhring then directed that the arsenic should be administered hypodermically, and this was done. For the first two months he appeared to be worse; then he began to improve, and under continued treatment he remained greatly improved for several years, with the exception of neuritis. Subsequently, he developed paralysis and later myelitis, with a rise of temperature and death.

Dr. Duhring said that his experience with mycosis fungoides had taught him that the disease ran a very variable course. In the case he had just narrated he had given an unfavorable prognosis many years before the patient died, and in another case, that of a woman who was still alive, he had supposed that the end would come seven or eight years ago. As a general thing, however, the cases usually ended fatally in the course of from three to five years.

DR. CHARLES J. WHITE, in closing, said he had expected some criticism of the interpretation of the death of the patient whose case he had reported, as it was always difficult to prove that a fatal outcome was due to toxæmia, and in this case there was nothing to corroborate this view at the autopsy.

In reply to Dr. Pollitzer, the speaker called attention to the fact that the patient had been entirely cured, so far as the lesions of mycosis fungoides were concerned, for several weeks, and the bed sores, to which the streptococcus infection was attributed, did not develop until ten or twelve days after the hyperpyrexia. He thought it was safe to say, therefore, that the septicaemia was not the chief cause of death, although it might have been a contributing one.

In reply to Dr. Goldenberg, Dr. White said he thought that blood cultures were made early in the course of the disease, but he had made no mention of it in his paper, which was limited to the report of a case that died under unusual circumstances. The fatal issue was apparently not due to mycosis fungoides. The patient did not die a long, lingering death. He was apparently in excellent condition when he developed this high temperature and died.

A PRELIMINARY NOTE UPON THE PRESENCE OF INDICAN IN THE URINE OF THOSE AFFECTED WITH DERMATITIS HERPETIFORMIS.

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Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

ABOUT five years ago the writer's attention was attracted to the constant occurrence of indican in the urine of a case of chronic vesico-bullous dermatitis herpetiformis. Since then the urine of all of his cases of dermatitis herpetiformis has been systematically examined for indican: the hydrochloric-nitric acid test being the one most frequently employed and the intensity of the resultant color reaction has been used as a comparative test of the amount present. During the last five years, only six cases of dermatitis herpetiformis have come under the writer's personal observation, but for a year or so, local colleagues and friends sent him reports of urine examinations or specimens of urine of their cases, thus eighteen have been collected. The reports upon fourteen of them are reliable, the other two being of uncertain value. In fourteen cases thus collected, indican was found in marked excess in the urine. Six of these were studied by the writer, and in each case numerous specimens of urine were examined during the exacerbations and remissions of the disease. In all of these six cases, eosinophiles were of high percentage in the blood and bullæ contents, and careful observation was made to see if there was a coincident eosinophilia and indicanuria. As the indican was found in greatest excess during an exacerbation of the dermal process, and as eosinophilous cells occur in the blood of this condition in the highest percent. during a like period, the two conditions were found to be coincident. Therefore, it seems that the increase of indican in the urine in these cases and the eosinophiles in the blood have a seeming relationship, but through what medium has, and cannot, as yet, be determined.

Dr. W. P. Loth in his "Report of a Unique Case of Dermatitis Pustulosa, with its Histopathology" (*JORN. CUT. AND GENITO-URINARY DIS.*, Aug. 1901), refers to the constant presence of indican

in the urine in his case, and remarks that it could readily be regarded as indicating a toxæmia of sufficient intensity to cause the eruption. Dr. Loth and the writer had been much interested in the subject and had had numerous conversations upon it; also Dr. Joseph Grindon, who in his "Diseases of the Skin," page 125, refers to this fact and confirms the presence of indican in the urine of these cases, as pointed out by the writer.

A very good review of the various urinalyses in dermatitis herpetiformis can be found on page 673 of *La Pratique Dermatologique*, by Brocq; however, he does not mention this most curious occurrence of indican. Furthermore, in the search of the literature, the writer does not find it referred to in this disease.

The cause of dermatitis herpetiformis is not known. It is attributed to nerve shock, some obscure derangement of the nervous system, toxæmia, disease of the bonemarrow, etc. It is not the writer's intention here to enter upon a theoretical discussion of the etiology of dermatitis herpetiformis, yet, if his finding of indicanuria is confirmed by further research, it seems possible that this fact might point to its principal etiological factor, namely:

(1) A toxæmia, generated through putrefactive or other conditions in the intestines: (generally the small intestines) or, (2) the invasion of the body by some animal parasite, the class of diseases in which it is most common to find the coincident occurrence of indicanuria and eosinophilia. A thorough study of the stools of these patients should be made, which has not been done in any of the cases here reported.

Diarrhœa or constipation is the rule in dermatitis herpetiformis, one often alternating with the other. Intestinal disturbances beside these conditions are rarely seen. Except when diarrhœa is present there is very little indication of intestinal putrefaction, yet we know that the latter is the usual source of indican when there are no symptoms of confined pus cavities or chronic suppurating wounds. Associated with marked constipation, there is usually indicanuria. Whether indicanuria, due to this cause, is associated with eosinophilia the writer is unable to say, yet he is inclined to this opinion from the few cases thus investigated.

That it is highly probable that dermatitis herpetiformis may be due to various toxic bodies acting upon one inclined to a reaction of that peculiar character, may be concluded from the manifestations seen in the following case, for which I am indebted to Dr. Amyx, former assistant superintendent of the City Hospital.

C. C., aged twenty-eight. Had had attacks of dermatitis herpetiformis for years and had been in various hospitals over the country. He was an intelligent man and suffered very much from his disease, therefore, he remained in the City Hospital where his case was carefully studied. Excess of indican was found in the urine and also in the sweat. The patient was obstinately constipated and suffered from headaches. Under intestinal treatment and diet, indicated by the presence of the indican, he made a satisfactory recovery, but several relapses occurred upon recurrence to his former diet and habits. The patient at various times insisted that the eruption could be caused by the internal administration of iodide of potash, therefore, during a period of remission, when the urine was free from indican, ten-grain doses of iodide of potassium were given three times a day. On the second day an eruption occurred indistinguishable from his former one. A vesicle was excised and presented a similar histologic picture to that of dermatitis herpetiformis. The same experiment was again tried with similar results. At this time the bullæ contents presented traces of iodine.

The manifestations presented by this case would suggest that this patient's reaction to certain, and possibly various toxic chemical bodies, would occur in the form of an eruption which would be classed as a dermatitis herpetiformis.

SOCIETY TRANSACTIONS.

BOSTON DERMATOLOGICAL SOCIETY.

January Meeting.

DR. TOWLE in the Chair..

Case for Diagnosis. (Urticaria Pigmentosa?) Presented by DR. TOWLE.

Boy, aged three. The first appearance of the disease was on the face when the boy was four years old. Since then new lesions have come out, a few at a time, not only on the face but also on other parts. None had shown any tendency toward spontaneous disappearance up to the time of the first visit to the hospital. There has never been any itching or other subjective symptoms and there has never been any eruption resembling hives. The general health has been good. The child was seen at the Massachusetts General Hospital for the first time July 19, 1901, when the records state that there were present on both cheeks and on the forehead irregularly shaped, dull-brown red, flat papules which grew very red upon friction but which did not itch. There were also a few similar lesions present on the upper arms. At this time the diagnosis of urticaria pigmentosa was made. The case was not

seen again until June 9, 1905, when it was recorded that the lesions previously noted still persisted, but were now of a peculiar yellowish color, elevated, flat-topped, and wrinkled. In addition new lesions had developed on the eyelids. A week later one of the lesions on the left arm was removed for histological purposes. To-day, after an interval of nearly eight months, it will be seen that the lesions previously mentioned as existing on the cheeks, eyelids, forehead, and upper arms, are still present. They have not changed in appearance except that perhaps their yellow color is a little paler. The parents think, however, that the lesions have shrunk somewhat and are less prominent than formerly. In addition to the lesions already mentioned, a few will also be found on the upper part of the chest. They vary in size from the point of a pin to the diameter of a pea. They project above the surface, are rather soft, flat-topped, of a yellowish color, and in the case of the larger ones, slightly wrinkled. Friction produces no reaction in the skin and urticaria factitia is not present. The sections were lost before I saw them myself, but Dr. C. J. White says that they did not show any increase of mast-cells.

Dr. C. J. WHITE had seen the case last summer when he had considered the diagnosis to lie between urticaria pigmentosa and xanthoma. The distribution, size of the lesions, slight pruritus and, if he remembered correctly, the absence of numerous mast-cells in a section he had seen, were opposed to urticaria pigmentosa. A further microscopic examination he thought most important, for the presence of numerous mast-cells, especially in atypical cases, was a *sine qua non* to the positive diagnosis of urticaria pigmentosa. He considered the affection probably xanthoma.

Dr. J. C. WHITE would have expected to see the lesions of urticaria pigmentosa browner, more generally distributed, and attended by more pruritus than had been shown by this case. He had not thought of xanthoma.

Dr. BURNS thought the case clinically like xanthoma multiplex. Several small, soft, buff-red papules on the upper eyelids seemed to him especially like xanthoma lesions.

Dr. TOWLE, in this case, had considered urticaria pigmentosa, but favored its exclusion on account of the absence of the most prominent characteristics of that affection. On the other hand, xanthoma seemed probable from the color, consistency of the papules, and their presence on the upper lids.

Case for Diagnosis. Presented by Dr. TOWLE.

This case is shown because of its very striking resemblance to the case of blastomycosis which was presented a short time ago. The patient is a market gardener, aged thirty-three. He states that eight years ago he had a growth on the back of his right forefinger which developed from a large seed wart and which extended peripherally until it finally involved the knuckle. At the hospital he was told that the lesion was tubercular. This lasted three years before healing. The hand remained free until about three years ago, when the present affection began. This new sore appeared on the back of the right

hand just below the knuckle. From this point it spread upward between the fingers and then downward toward the wrist and inward toward the little finger. As the border grew the older portions showed a tendency to heal behind it. When first seen the lesion covered the back of the right hand from an inch below the knuckles to the wrist, and extended laterally from one edge of the hand to the other. It was elevated somewhat above the surface, and its top, which was comparatively level, was covered with small projections from which pus could be expressed. Toward the upper and outer edges were also areas of varying sizes made up of reddish or pinkish sears. Scattered over these areas were also other smaller areas averaging the size of a pea which were bright red, glistening, and slightly moist. The border of the whole lesion sloped down gradually to the surrounding skin, was of a dusky red hue and in it from time to time developed minute pustular points. The lesion has gradually flattened until it is now level with the surrounding skin, the verrucous projections having disappeared and the greater portion of the area is covered with a firm scar of pinkish hue. While this process has been going on abscesses of all sizes, from a pin point to the end of the finger have developed in constant succession over nearly all portions of the lesion, but more particularly over the lower. When incised a few drops of pus and much dark-colored blood was emitted. Faithful and repeated search for the blastomyces in the pus has always failed. A section of a piece taken from the border also failed to show either organisms or epidermic abscesses.

Dr. J. C. WHITE said the condition looked like lupus vulgaris partially healed. He thought that some cases of so-called blastomycosis had been confounded with tuberculosis of the verrucous type.

Dr. HARDING looked upon the affection as lupus vulgaris. Clinically he had found much difficulty in distinguishing blastomycosis from tuberculosis.

Dr. SMITH regarded the duration of the process and clinical picture most like tuberculosis.

Dr. C. J. WHITE wished to differentiate between lupus vulgaris and blastomycosis, however not seriously considering the latter affection.

Dr. BURNS considered lupus vulgaris the probable diagnosis. In connection with the verrucous character, what appeared as some small pus points at the periphery would only have suggested the possibility of blastomycosis.

Dr. Towle had thought the appearances of the lesion strikingly like blastomycosis, and it was not until after considerable observation that he accepted the process to be tubercular.

Case for Diagnosis. Presented by Dr. C. J. WHITE.

Man, aet. 46, born in Massachusetts, occupation farmer. There is no history of sarcoma or cancer in the family. The patient had scarlatina in childhood and typhoid at fifteen years of age; otherwise his health has been good until the beginning of the present affection. About seven years ago a small lump was noticed in the left axilla the size of a pea, which, as it caused no inconvenience, attracted small at-

tention until last March, when it began to be painful; pain of a dull, steady character radiating over the shoulder and down the arm. At this time the axillary tumor had attained the size of a small egg. Last May other nodules were first noticed, appearing in the skin on the left side of the neck and anterior part of the axillary fold. Here the nodules gradually enlarged, and from thence extended over the trunk, front, and back. The process seemed to extend from left to right. Everywhere that nodules have appeared they have been small when first seen and slowly enlarged. Four weeks ago the left side of the face began to swell, persisting since. There has been considerable pain during the past three months in the region of the left shoulder, especially at night, and causing some insomnia. An intermittent cough and moderate dyspnoea have at times also occasioned discomfort. On entrance to the Ward for Skin Diseases in the Massachusetts General Hospital, the physical examination recorded was as follows:—Well developed man, fairly well nourished, weight 137 lbs. The skin is rather loose over the musculature, indicating some loss of fat. The patient states that he has lost 20 lbs. in the past three months. Temp. 99, pulse 110, resp. 25. Urine—high, turbid, acid, spec. grav. 1028; albumin and sugar absent. Blood—hæmoglobin 80%, leucocytes 10,800, red cells 4,700,000. Differential blood count:—neutrophiles 73%, basophiles $24\frac{1}{2}\%$, eosinophiles $1\frac{3}{4}\%$, mast cells $\frac{3}{4}\%$. Lungs normal, except for slight prolongation and roughness of expiration. No cardiac abnormality detected. The head is fixed toward the left side approximately at an angle of 30° . The left side of the face is considerably swollen, the skin being of a pinkish-red hue and highly indurated. The left eyelids are greatly œdematous, closing the eyes. The left arm is greatly tumefied and the hands œdematous as though due to passive congestion. Scattered over the outer aspect of the arm are many papules and tubercles firm and hard. The neck is of a brawny red color and much indurated, giving to it much the consistency of rubber. Profusely disseminated over the back of the trunk are papules and tubercles, discrete and confluent, of a brawny brick-red hue. Here the process extends to the lower dorsal region. At the posterior part of the left axilla the skin is particularly indurated and nodular. The anterior part of the left axilla is swollen, deeply infiltrated, and with the normal folds of the skin much aggravated. Extending across the left shoulder to the right axilla, and down over the anterior surface of the chest and abdomen, to a level one inch above the umbilicus, is extreme thickening and hardness of the skin caused by its infiltration with many bright red papules and tubercles, many distinctly umbilicated, which, from a distance, suggests the large papules of erythema multiforme. All of the lesions are very hard, almost of a cartilaginous consistence. The neck is so indurated that it cannot be palpated. Where the process rather abruptly ends over the abdomen, the border can be felt as a firm encasement which suggests the condition designated as "*en cuirasse*."

Numerous glands can be felt in the right axilla. In the groins many hard, medium, and large-sized glands can be seen and palpated. Mesenteric glands could not be felt. A piece was excised for microscopic examination, but the appearances were so abnormal that their only interpretation could be ascribed to faulty technique. All tissues were densely swollen, even the epithelial structures were distorted almost beyond recognition. There were sufficient indications present, however, to denote the carcinomatous, rather than sarcomatous, nature of the tumor.

Dr. J. C. WHITE thought that carcinoma and sarcoma were the diseases to be differentiated in this case. The presence of dense induration, the brilliant color, and progressive infiltration from the primary focus were all points in favor of carcinoma. Against sarcoma was the lack of venous engorgement in the newer lesions, and the localization of the process. In sarcoma he would have expected to see a more general diffusion of the disease.

Dr. HARDING made no definite diagnosis, but in discussion agreed with Dr. J. C. White that carcinoma and sarcoma should be considered, and further thought that mycosis fungoides ought to be brought into differentiation.

Dr. POST considered the case a malignant neoplasm, either sarcoma or carcinoma. There seemed to him to exist symptoms of pressure on the trachea. The duration he thought not incompatible with carcinoma.

Dr. C. J. WHITE considered the affection a malignant neoplasm, but was not willing to make a more definite diagnosis without further microscopic examination.

Case for Diagnosis. Presented by Dr. C. J. WHITE.

Bella B., 12 years old, and a native of Russia, was brought to the Massachusetts General Hospital on account of a skin eruption. The history obtainable is apparently of little value, as the relatives of the child never tell the same story, and the child can speak but a few words in any language. The mother, father, and one brother are alive and well. When one and a half years old, the child had cerebro-spinal meningitis(?) lasting months, and causing temporary deafness and permanent blindness in the left side, and a marked deficiency in the power of speech. The child is, however, quite as bright as the average, and after a week's sojourn in the hospital has learned some broken English words. Examination shows a sufficiently well-developed girl, with a well-shaped skull. The left eye is opaque and blind. The left cheek is fuller than the right. The teeth are normal. There are a few palpable glands in the neck, but none elsewhere. Chest and abdomen reveal nothing abnormal. At the lower third of the left ulna there is a marked swelling which is painful to the touch, and which a radiograph proves to be a distinct elongated separation of the periosteum from the underlying bone,—i. e., a periostitis. The anterior tibial ridge of the left lower leg is rounded and somewhat thickened, but the x-rays reveal nothing, and a week's rest and good food have caused this lesion to disappear. Such are the general conditions of the child and it is interesting to note that

all these cutaneous changes about to be described are associated with the left side of the body. The unreliable history states that the oldest skin lesion dates back two years, while the later ones are of quite recent origin. This original lesion is found in the left axillary fold and consists of an elongated nodule running with the fibres of the skin, and about a half inch in length. It is high above the surface, red in color, somewhat soft in consistency, and topped by a dirty yellow crust. Over the left patella is a round ulceration two inches in diameter, and on entrance presented a somewhat raised, dull red, soft, slightly overhanging rim, with a marked violet-red halo. The center consisted of a mass of hypertrophied papillæ covered with occasional dirty-yellow crusts, with here and there a suspicion of a pustule. A week's application of boracic acid salve alone has caused the subsidence of these papillomata, and the superjacent crusts and interlying pustules. Above this largest ulcer on the outer left thigh, and below, over the outer condyle on the same side, are two round ulcers similar in appearance, but one inch in diameter. All of these lesions bleed easily when disturbed. A piece of skin from the periphery of the large ulcer was excised under ether, and prepared for microscopical examination by the customary methods. All who had studied the case expected to find evidence of tuberculosis, or, perhaps, of blastomycosis, but the sections failed to reveal any suggestions of either of these diseases. The rete was for the most part acanthotic, with marked prolongations into the corium. The lower cells were normal, but as in most cases of acanthosis and parakeratosis, the more superficial cells soon began to show perinuclear halos, and the nuclei to disappear. The granular cells were entirely wanting, and the horny layer, somewhat thickened, presented well-marked elongated nuclei. In places there were some flattened leucocytes in the interstices of the rete cells. In other parts of the sections, acanthosis and parakeratosis were not present, the rete being compact with no epithelial pegs. Below the epidermis the picture became more complex. In places there was a delicate transparent meshwork, holding dilated vessels and numerous evenly distributed lymphocytes. Such conditions existed below the acanthotic regions of the rete. Under the denser, more normal epidermis, a more unusual picture was presented. Here the corium was dense, and there appeared a branching, basic-staining, swollen, and structureless mass of tissue, suggestive of collacin(?). This amorphous material appeared deep in the corium, also lying above the panniculus adiposus and between the acini of the sweat glands. In places there was considerable perivascular infiltration, and in the meshes of the fat tissue lymphocytes were markedly in evidence.

Dr. HARDING thought the lesions, especially those of the axilla, tubercular; though in some respects they looked like syphilis. He suggested antisypilitic treatment.

Dr. SMITH was unwilling to seriously consider syphilis, as other signs of that disease were wanting. A definite opinion of the affection was reserved.

Dr. POST looked upon the case as somewhat of a puzzle. Simple applications were suggested before the essay of more stimulating or radical treatment.

Dr. J. C. WHITE, to the affections already suggested, wished to add the possibility of aleppo boil, though the sites involved would be very unusual for that disease. Simple treatment was also advocated by Dr. White.

Dr. BURNS had considered the process either tubercular or of possible blastomycetic origin. The latter affection was principally considered on account of the purported duration of 2 or 3 months. Subsequently, however, from the probable longer duration of the lesions, and absence of pus or miliary abscesses in the diseased tissue, the former disease seemed to him the more probable.

Dr. TOWLE thought the case probably tubercular.

Dr. C. J. WHITE had considered the possibility of tuberculosis and blastomycosis. He thought the appearances incompatible with syphilis. A biopsy was taken from the patient which would be reported upon.

A Case of Pityriasis Rosea? Presented by Dr. C. J. WHITE.

The patient, a healthy man of forty years, states that between five and six weeks ago his attention was called to his lower outer right leg by a marked itching. On examination he found a small red area. About one week later other lesions appeared above the outer right malleolus, and also upon the upper thighs and lower abdomen. These lesions have grown larger and have caused a sensation of "soreness" whenever the man grows warm and perspires. To-day the following eruption is present:—On the lower right leg appear three circular areas $\frac{3}{4}$ of an inch in diameter, with slightly raised, somewhat papular red periphery in the midst of which a flat, possibly depressed, fawn-colored, finely scaling skin is seen. About these larger lesions appear numerous, large pea-sized papules, which tend to arrange themselves in circles with comparatively normal interlying skin. Similar lesions are found on both upper thighs in the genital region, while on the right side there are still smaller areas extending over the abdomen in the appendix region. Glands are evident in the anterior triangles of the neck.

Dr. SMITH: Certain lesions suggested lichen planus; those on lower part of the legs were confusing. No definite diagnosis was offered.

Dr. HARDING considered pityriasis rosea, seborrheic eczema and psoriasis. The latter was thought the more probable.

Dr. J. C. WHITE thought the case puzzling. To him some of the lesions were distinctly lichenoid. The picture was not unlike the affections that have been described under the name of erythema papulatum et tuberculatum.

Dr. TOWLE, had it not been for some of the lichenoid papules, would have favored pityriasis rosea. No positive expression of opinion was given.

Dr. C. J. WHITE had seen the patient for the first time a few hours before he was presented before the Society, when he had taken the affection to be an atypical expression of pityriasis. He was still inclined to adhere to his original opinion.

F. S. BURNS, *Secretary*.

MANHATTAN DERMATOLOGICAL SOCIETY.

47th Meeting.

January 5, 1906.

DR. ROBERT ABRAHAMS, Presiding.

Case for Diagnosis. DR. L. WEISS.

Female, aged 26, Russian, married one year, first skin lesions three months ago. The eruption began as an erythema, preceded by a good deal of itching, on the arms and legs, spreading later over the entire body. The lesions consisted of small oval and larger irregular patches, pale to livid red in color, the older ones slightly pigmented. They are especially well marked on back, chest, and abdomen. There are also numerous papular lesions on back and thighs, some of them considerably elevated and indurated, and many of them as large as a dime. Near the vaginal fold is a single large moist papule(?); there is also angina. The husband shows no evidence of lues, and the patient denies infection. Dr. Weiss ventures a tentative diagnosis of maculo-papular syphilide, despite the history.

Dr. C. W. ALLEN was inclined to doubt this diagnosis; the indurated lesions on the back suggested an atypical variety of erythema multiforme to him. He had observed this affection showing marked indurated lesions and leaving pigmentation.

Drs. GOTTHEIL and COCKS believed that two distinct sets of lesions were present. Those of the mouth and palms appeared to be luetic, whilst those on the trunk were erythematous, and largely due to scratching.

Dr. E. PISKO did not consider any of the lesions syphilitic. The marked initial pruritus was against that. He regarded the case as one of simple acne, with hyperidrosis of the hands.

Dr. I. P. OBERNDORFER had seen somewhat similar eruption in the course of constitutional syphilis, and agrees with the reporter's diagnosis.

Dr. A. BLEIMAN had seen the case at the German Polyklinik before Dr. Weiss. The throat symptoms, acute at first, mostly subsided during the first 24 hours, and were probably an ordinary tonsillitis. The skin lesions at that time made him incline to the diagnosis of erythema multiforme. There were, however, some signs that favored syphilis, and in this case its differentiation from erythema was very difficult.

Dr. C. A. KINCH regarded the eruption as an erythema. Drs. Parounagian and Abrahams held it to be luetic. Dr. Weiss added that though the patient had had a few mercurial injections and the acuity of the lesions had not changed, his diagnosis would be syphilis. The treatment would be continued and the patient reported on later.

Multiple Neuro-fibromata. DR. L. WEISS.

This case was presented to the Society at the meeting of November of last year, with a tentative diagnosis of sarcomatosis cutis. The conditions are practically the same as at that time. A short history of the

case reported in the *JOURNAL OF CUTANEOUS DISEASES*, Jan., 1906, page 35. An excised nodule, examined by Dr. Brooks, shows the tumors to be neuromata, according to the following report:

"The main bulk of the growths appears to me made up of a fibrillar type of connective tissue with which are mingled connective tissue cells, many of the spider form. In places this has taken on a decidedly gliomatous appearance, strongly suggesting neuroglia. Nerve fibres of very atypical arrangement are to be occasionally identified, and apparently they make up an integral part of the tumor. Large open spaces are plentiful throughout, and occasionally one finds these spaces filled with a material resembling lymph; in such areas the growth has a striking resemblance to a lymphangioma, particularly since in some cases these spaces are surrounded by a layer, often stratified, of large single-nucleated epithelioid cells having a very granular cytoplasm. The size of the cells varies greatly, and many of them are found independent, wedged between the fibrils of the growth. In other places they are found in oval or spherical masses, somewhat resembling the centers of young tubercles. Not infrequently these cells appear to have blended into giant cells, often of enormous size and usually with peripherally arranged nuclei. Though the cytoplasm of all these cells is invariably granular, actual necrosis is not demonstrable. Occasional patches of lymphoid infiltration occur and other areas in which very active and atypical proliferation of the connective tissue cells is taking place. In some places the fibrils of connective tissue are swollen and show well marked hyaline degeneration.

"The growths are certainly most unusual, they seem to bear a very definite relationship to the nerve fibres or perhaps nerve fibres are developed within the tumors as a part of their regular structure. I am, however, strongly inclined from the histological picture only to class the growths as most probably neuroma.

"H. B."

Dr. GOTTHEIL: of course the histological report is decisive; yet it is strange that there should be absence of pain and tenderness in growths of this kind. The microscopic diagnosis between sarcoma and fibroma was often a matter of very great difficulty.

Naevus Verrucosus. By DR. W. S. GOTTHEIL.

George A., aged 24 years. There is a verrucous mass, 3 by 2 inches in size, over the center of the pubes. Present at birth, it was for many years a plain discoloration, a vascular and pigmentary naevus. Of late years it has been getting more prominent and warty; occasionally in warm weather it gets sore, and gathers pus in the interstices. This is undoubtedly an instance of the process that Unna calls "birth of a naevus"; in consequence of the pressure of the fibrous and elastic tissue

on the masses of nævoid cells the new growth is gradually extruded superficially, in the direction of least resistance. This explains the histories that we often get of the growth or even the appearance *de novo* of these congenital tumors in later life. Excision is the treatment recommended; at present the patient is being subjected to the X-ray.

Dr. COCKS had had an extensive case of the kind under observation for some time, involving the face, neck, and upper part of the back, which he had treated with success by electrolysis.

Dr. ALLEN said that he had cured these cases with the X-ray, though he would not advise that treatment for all of them. In this special case he would recommend the use of liquid air, from which he had had good results, in these cases as well as in lupus erythematosus. Dr. PAROUNAGIAN also advocated the use of liquid air.

Seborrhoea Congestiva. DR. L. WEISS.

Male, aged 31 years, Russian. On both cheeks, directly above the malar prominences, are a number of small, flat, greasy-scaled papules arranged in a semi-circle; the entire skin of the bridge of the nose and the adjacent cheeks is hyperæmic and oily. The condition is a chronic one. There has been little or no progress in the disease, the lesions remaining in this condition for the past three years. Dr. Weiss says it was the earliest stage of lupus erythematosus and termed it congestive seborrhœa.

Dr. GOTTHEIL regarded the condition as the first or preliminary stage of lupus erythematosus, best designated, as the reporter has done, as congestive seborrhœa.

Pigmentation of the Skin from Psoriasis. DR. A. BLEIMAN.

Male, aged 24 years, Austrian. Skin has never been free from lesions for 10 years. The upper part of body, especially the arms, resembled an extensive eczema; the lower limbs were typical of psoriasis. The scalp and face show mild dry seborrhœa. No history or evidence of lues. The notable feature of the case is the permanent and deep pigmentation that the lesions have left behind. Besides the active psoriatic lesions, the back is covered with small, isolated pigmented areas suggestive at first sight of a pigmentary syphilide. In the centers of some of these pigmented areas are new guttate psoriatic efflorescences.

Dr. WEISS said that the permanent pigmentation showed an involvement of the deeper layers of the skin that was unusual in psoriasis. Dr. Ochs and other members had seen temporary slight pigmentation after psoriasis, but hardly a case in which it was so marked and permanent. It was suggested by Dr. Gottheil that possibly the patient had taken enough arsenic during the various treatments that he had received in the last ten years to account for the pigmentation.

Dermatitis Herpetiformis with Fungoid Vegetation. DR. W. S. GORT-
HEIL.

S. H., aged 30 years, City Hospital, June to December, 1905. Previous history negative as regards venereal disease, alcoholism, etc. Present disease began three and a half years ago, when a vesiculo-bullous eruption appeared on the abdomen; thence it spread to limbs, face, and various parts of the body. Successive crops of eruption have come on from time to time, some of which have disappeared entirely, leaving only staining of the skin. Other groups, however, have not disappeared, but have gone on to assume the vegetating condition to be described below. Has been under the care of various specialists in different institutions, and has had various diagnoses, pemphigus, pemphigus vegetans, dermatitis herpetiformis, etc. At the time I took charge of the service in June there was an extensive X-ray burn involving a large part of the lower half of the abdomen, penis, scrotum, etc. The radiodermatitis healed very slowly, as usual, and during the summer, whilst under observation, he had another attack of his original affection, involving chiefly the lower extremities. The lesions were vesiculo-bullous and grouped; but as the attack progressed, isolated lesions appeared on the skin between, until almost the whole surface of the lower part of the body was involved. The individual lesions ruptured, leaving an excoriated surface; this spread, became confluent with neighboring lesions, and forming extensive, raw, granulating surfaces. Papillomatous development then occurred; until finally the affected area became covered with a hypertrophic, reddened, moist, granulomatous mass. This was improving, becoming drier and flatter, when I left the service in December. Throughout the attack itching was but little marked; the patient complained of burning, tenderness, and pain. His general health remained fairly good, and he was not confined to bed most of the time, in spite of the extensive areas involved. None of the various internal modes of treatment seemed to have any effect on the eruption. Locally dry powders gave him much more relief than ointments, oils, or wet dressings.

The diagnosis was dermatitis herpetiformis of the vesiculo-bullous form, with the peculiarity of the extensive fungating, hypertrophic areas left by the lesions. Pemphigus vegetans is excluded by the length and chronicity of the course of the disease, the noninvolvement of the general health, its not beginning on the mucosa, etc. Erythema multiforme is excluded by the location and course of the disease. I do not recall that the fungoid granulomatous condition, as a sequel to the dermatitic herpetiform disease, has as yet been recorded.

A. BLEIMAN, *Secretary.*

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of A. D. MEWBORN, M.D.

BULLOUS AFFECTIONS.

By JOHN T. BOWEN, M.D., Boston.

Pemphigus Foliaceus. BROUSSE AND BRUC. (*Ann. d. Derm. e. Syph.* 1905, p. 853.)

Brousse and Bruc of Montpellier, report the case of a man of 46, a farmer, who first developed lesions of an erythematous character on the upper part of the body, which rapidly spread to the extremities. The erythematous lesions were intensely pruritic and were soon succeeded by a bullous eruption, the bullæ varying in size from that of a pea to that of half a mandarin, and quickly rupturing. When admitted to the hospital, the bullæ on the trunk, chest, and back were confluent, and formed geographical figures with circinate borders, mingled with crusts. There were also well-formed bullæ on the extremities, together with ulcerated surfaces caused by broken and dried bullæ. Similar lesions were present on the head, scalp, and face.

The patient's general condition was bad, as he was tortured by a severe itching. At the end of a month the bullous eruption was completely arrested, not to return. A general desquamation took its place, the scales of a dull white color, being irregular in size and dimensions, and attached at only a single point. There was considerable exudation from the exposed papillary layer which had a fetid odor. There was no implication of the mucous membranes. At this stage the pruritus was not intense, but there was much stinging and burning. The treatment consisted of starch baths daily, followed by inunction with either simple vaseline or an ointment composed as follows:

| | |
|--------------------|------|
| Acid salicyl | 1. |
| Ichthyol | 5. |
| Vaseline | 100. |

Cacodylate of soda was given internally.

The patient continued to lose ground, and died rather suddenly five months later, having shown a rise of temperature and cough.

At the autopsy the spleen showed a marked proliferation of the

lymphoid tissue with diffuse hæmorrhages. The kidneys were the seat of lesions essentially epithelial and capable of leading to a total degeneration. The liver showed a proliferation of the periportal connective tissue, with new formation of bile ducts and an extreme fatty degeneration. The skin showed a papilliform proliferation of the epithelial layer, with intense desquamation and vacuolization of the lower cells; this process led to a necrosis of the whole epidermis and to a superficial ulceration. The corium presented a perivascular infiltration, without polynuclear cells. The latter appeared only when the necrosis of the Malpighian cells was pronounced. There were then œdema, fibrinous infiltration and thromboses.

The writers considered they were dealing with a case of pemphigus foliaceus, by exclusion of other bullous dermatoses. A point of interest in this case is its rapid course, a fatal termination being reached in about nine months. The eosinophiles in the blood were increased to about 12½%. The etiology remained obscure. The only facts that could be gathered were that the patient had been somewhat alcoholic and in poor physical condition.

Epidermolysis Bullosa Hereditaria. VALENTIN. (*Archiv. f. Derm. u. Syph.*, lxxviii, 1906, p. 87.)

Valentin of Berne, published an instance of this affection in 1885 under the name dermatitis bullosa. This name, however, was not considered appropriate on account of the conception of inflammation implied by the word dermatitis. In the instance reported in 1885, 11 cases were recorded in one family. At the present time Valentin reports that 17 cases can be cited in this family, some of whom are no longer living.

One of the cases reported in 1885 was that of a boy of 16, who could not undertake his military service nor work at agriculture on account of his affliction. At the present time he is married and father of a son born in 1904. He suffers much less than he did 20 years ago, but small bullæ still appear occasionally, especially in the summertime, on parts that are subjected to pressure from the clothing. His one-year old son exhibited at once signs of the affection. When seen there were bullæ everywhere in the places where the clothes fitted close to the skin. They were especially numerous on the legs and some were as large as half an egg.

As to the etiology, we are limited to mere hypothesis. The appearances are not in quality different from those we find in normal individuals as the result of long-continued friction or pressure from rowing, shoveling, etc. Undoubtedly there is a serious exudation from the vessels of the papillary layer, but whether this fluid acts simply to loosen and lift up the outer epidermal layers, or whether it directly dissolves the cells of the soft stratum germinativum is not known. It is evidently

not dependent on the nervous system. The hereditary feature, as in hæmophilia and acute œdema, would point to an inherited weakness of certain groups of cells in the walls of the papillary vessels, which would more easily give exit to the serum, in the presence of slight injury, and this view is somewhat strengthened by the tendency to improvement with advancing years. Valentin produces the family tree of the cases in question, which shows that his earlier opinion that no generations were skipped by this affection is not true. This series of cases shows that the affection occurs more often and with greater intensity in men than in women. In this respect, also, epidermolysis bullosa hereditaria offers an analogy to other diseases which are passed on through generations, such as hæmophilia, acute œdema, and hereditary color blindness.

Pemphigus Vegetans with Tumor Formation. VON ZUMBUSCH. (*Archiv f. Derm. u. Syph.*, lxxiii., 1905, p. 121.)

Von Zumbusch reports from the Vienna Clinic two cases of this affection that differ considerably from any previously described. The first case was that of a man of 46, whose affection had begun three months previously. On entrance the umbilical region was found to be the seat of an area as large as the palm, of serpiginous border, on which was an elevated growth of a papillary character, covered with grayish epithelium, and separated by furrows. On the borders of this area were numerous flaccid bullæ of varying size. Similar areas were present in the left inguinal region, on the scrotum, and on the inner side of the left thigh. There was oozing and excretion from the lesion of the umbilicus. There is an oozing excoriated area on the right ear, and two areas on the scalp which are papillomatous in the middle, oozing and covered with pus. The lower lip was affected as well as the mucous membrane of the cheeks. The patient left the hospital and was not seen for four years. In the interval he had at times considered himself about well, except that the tumor formations did not disappear. He showed at this time numerous patches similar to those described before. A remarkable feature was the appearance of the tongue which was greatly enlarged and gave the impression of being hypertrophied. The surface was covered with fissures, between which were papillary pointed excrescences. There were tumor-like formations especially marked in the region of the groins, some of them having a distinct pedicle. The tumors resembled condylomata acuminata, as seen in large masses on the female genitals. The patient remained in the hospital until his death six months later. The microscopical examination of the tumors gave a picture much like that of advanced cases of condylomata acuminata.

The second case was that of a woman of 49, and was in most respects similar to the one just described, except that a fatal termination was not reached, the patient having been discharged improved.

These cases differ from the ordinary type in the relatively benign course. In most cases of pemphigus vegetans a fatal ending is reached in a short space of time, usually in a few months. Another point of difference is the localization of the vegetation. Whereas in most cases the mouth, umbilicus, axillæ, and groins are the parts affected, in these two cases the lesions and tumors appeared also on the arms and legs and on the back respectively. Also the growth of the papillomatous elevations to pedunculated tumors. Although these pedunculated tumors at first glance looked like a symptom that did not belong to pemphigus vegetans, their histological appearances showed themselves analogous to those of the ordinary vegetations of this disease. The formation of pedunculated tumors exemplifies a higher degree of the papillomatous growths peculiar to this disease.

Pemphigus Foliaceus, Blood Changes in. GRINEW. (*Derm. Zeitsch.*, xi., 1904, p. 877.)

Grinew's results from twenty-three examinations from a single case taken at different times of day were as follows: The red corpuscles were diminished in number, the white diminished both absolutely and in their proportion to the red. The circumference of the blood corpuscles was diminished, and the blood was consequently watery. The circumference coefficient was somewhat increased, therefore the red corpuscles were either smaller, or their elasticity was increased. The amount of hæmoglobin was decreased, which partly bears out the view that there is a diminution in size of the red corpuscles. The specific gravity was lower. The number of lymphocytes was decreased, while that of the mononuclear and polynuclear leucocytes was somewhat increased. The neutrophils were larger than normal, the eosinophils were lessened in number. There were no basophils.

PATHOLOGY

By CHARLES J. WHITE, M.D., Boston.

Streptococcus, Role of, in Pathology of the Skin. *Ein Beitrag zur Rolle des Streptococcus in der Pathologie der Haut.* KRZYSZTAŁOWICZ. (*Monatsh. f. prakt. Dermat.*, vol. xlvii., p. 1, 1906.)

The writer speaks of some of the difficulties connected with the study of streptococci in their relations to the skin and refers especially to the fact that these same organisms apparently produce such different clinical entities as impetigo contagiosa, certain bullous conditions and

erysipelas, while the complex structure of the skin still further complicates investigation by the separate functions of its different component parts.

The essential part of this contribution consists in the study of two dissimilar types of streptococcus infection of the skin.

The first case relates to a man who punctured his thumb. This wound was followed by a localized abscess and in three days by chills, fever and pain which reached the neck. Bullæ then developed on the upper and lower arm to such an extent that herpes zoster was simulated. Microscopically and bacteriologically streptococci were found. Histologically, the bullæ were found lying in the upper layers of the rete and contained streptococci in chains, pus cells, and fibrin. The writer explains this secondary eruption as due to a general infection manifesting itself through the lymph vessels.

The second case refers to a man who developed a vesicle upon the dorsum of the foot. Excoriation of this lesion led to a crusting sore, followed by other similar exulcerations on various parts of the body. Here both streptococci and staphylococci were found, and histologically the lesions were ecthymatous in structure. The writer interprets the original vesicle as due to a streptococcal infection and the secondary lesions as produced by a double inoculation of streptococci and staphylococci.

Sebaceous glands, Intra-epidermic. *Unter der Hornschicht gelegene intra-epidermidale Talgdrüsen.* PASINI. (*Monatsh. f. prakt. Dermat.*, vol. xlii., p. 67, 1906.)

Hoffmann was the first to observe this phenomenon and Pasini publishes now what he considers the second instance of this anomaly.

The patient was a woman, always delicate in health, who died at the age of twenty of congenital aortic and mitral stenosis. In addition, there were pigmented nævi on the face, neck and chest, some of which lay deep in the skin and resembled sago grains. These latter were, histologically, enormously dilated sweat ducts and the former, fibromatous nævi. In both of these growths Pasini found between the stratum corneum and the stratum granulosum a sharply demarcated zone of sebaceous glands in all respects normal. Serial sections demonstrated that these glands connected directly with adjacent hair follicles.

Pasini described the evolution of these glands by the splitting of the outer root sheath of the follicles and the subsequent fatty, sebaceous degeneration of the interlying epithelial cells. The lower section of the follicular wall continues beyond as normal epidermis with rete and granular cells, while the upper strata become rapidly thinned and appear above the newly-formed sebaceous glands as a double or triple row of rete cells with a loose covering of horny matter. Beyond the glands the two layers reunite and form a normal epidermis.

Hoffmann explained his case as due to the upward displacement of pre-existing glands by a cyst and their retention by hyperkeratosis of the neighboring follicles. Pasini, on the other hand, attributes his example to a faulty embryonal development.

Scleroderma, Histology of. *Ein Beitrag zur Histologie der diffusen Sklerodermie.* KRZYSZTAŁOWICZ. (*Monatsh. f. prakt. Derm.*, vol. xlii., p. 143. 1906.)

The author says that the pathogenesis of scleroderma is unknown, but mentions many general infectious processes as well-recognized precursors of the disease and especially mentions infectious wounds of the skin as possible etiologic factors.

Krzyształowicz describes two recent cases which fell to his care in one of which ulceration subsequently developed. The histology of the simple case was interesting in some respects. A piece of skin was excised from the arm and was found to be thinner but more compact and harder than usual. There was a distinct diminution in the amount of subcutaneous fat, but this same area and the deepest layers of the corium were filled with a great mass of cells which were especially abundant about the vessels. These same vessels appeared in many instances to be invaded by these cells, while their lumen was occluded by endothelial overgrowth. Their elastic structures were greatly hypertrophied and received the basic stains as did the surrounding fibrous structures. Elacin and Kollastin thus played a rôle in this example of scleroderma. The middle layers of the corium were normal, but the upper strata again absorbed the basic stain and their individual fibres were swollen and straight. Here again cellular infiltration, especially of a plasma cell nature, was marked. The epidermis showed a thickening of the horny cells about the follicles, and a thinning of the other layers with pigmentation in the stratum germinativum. The adnexa of the skin were also altered,—the sweat channels were narrowed by changes in their inner rows of cells, and the hair follicles and sebaceous glands were atrophied.

The pathological changes in the second case, where ulceration developed, could be divided into two parts, *i. e.*, that of the original scleroderma and that where secondary ulceration was present. The sclerodermatous area was quite similar to that described in the author's first case. The ulcerative changes showed nothing unusual and were produced, in all probability, by the obliterative vascular process described above. Krzyształowicz thus found no hypertrophy of collagen but rather a collagenous degeneration. He did find an obliterating arteritis which, he claims, is the essential process present, thus bringing scleroderma and idiopathic atrophy of the skin into close pathological relationship.

Lichen Planus of Mucous Membranes. *Dellenbildung bei Lichen Ruber Planus der Schleimhaut.* VÖRNER. (*Dermat. Zeitsch.*, vol. xiii., p. 107. 1906.)

Vörner states that umbilication of lichen planus papules or mucous membranes has been but seldom referred to by writers.

The present example was found in the case of a man who had suffered at various times from eruptions of lichen planus. The last attack produced numerous typical lesions on the cheeks, lips, gums, and tongue, which at first remained discrete but later coalesced. After drying these nodules carefully, one could see clearly on the top of many of them a dark, central depression.

Histologically, these lesions showed the characteristic zone of infiltration in the subpapillary layer of the corium and the usual dilatation of the blood and lymph vessels. In the center of the nodule, between the epithelium and the infiltrate, was seen a small fissure above which the epidermis was raised. This space was filled with a thread-like framework in which lay mononucleated cells and a few polynuclear leucocytes. Below this fissure, lying in the infiltrated zone, was found a second cleft partly empty and partly filled with the contents observed in the upper fissure. (These clefts were apparently attempts at bullous formation, not infrequently noted in this disease. Ref.) In addition to the spaces, Vörner found the epidermis comparatively deep, the basal and rete cells large and the intercellular spaces wide. The umbilication was produced by a thinning of the epidermis and through the depth of this area was seen a vertical band of kerato-hyalin cells which was topped by a layer of horny, swollen cells with slightly deformed nuclear remnants.

Moles, Researches into the Origin and Structure of, and their Relation to Malignancy. W. S. Fox. (*Brit. Jour. Derm.*, vol. xviii., pp. 1-15, 47-59, 83-103.)

In this long and carefully studied paper Fox describes the results of his investigation as to the origin of moles and the subsequent development of malignant tumors from them. The article is full of references to the views of other workers in this much debated field, and presents very plausible arguments from personal deductions in favor of the following conclusions with which the author closes:

1. That in those moles which show the typical columns of nævus cells the cells are epidermal in origin.

2. That there is a rarer variety of soft moles which show no typical nævus-cell arrangement, and whose origin is uncertain, possibly mesoblastic.

3. That in the majority, cases of nævo-melanoma are nævo-carcinoma.

4. That melanomata do arise in the skin entirely apart from moles.
5. That Cohnheim's view of the origin of malignant growths is not borne out by the foregoing observations of the histology of nævo-melanoma.
6. That the pigment appears to be closely connected with the prime cause, by reason of which moles become malignant, whatever that cause may be.

Triple Staining for Cytological and Histological Purposes, A New and Easy Process of. BONNEY. (*Lancet*, January 27, 1906. p. 221.)

This new method is founded upon the triple stain of saffranin, gentian violet, and orange G. by which Flemming claimed that he could differentiate the chromatic substance of the nucleus, the cytoplasm and the intercellular substance. This method was complicated and not always successful and Bonney's modification was devised to obviate these difficulties and uncertainties.

Bonney's technique:

1. Fix small pieces of tissue in acetic-alcohol (pure glacial acetic acid, one part; absolute alcohol, two parts) for five to fifteen minutes. Dehydrate rapidly in several changes of absolute alcohol.
2. Prepare sections by the usual methods.
3. Stain for one hour in a saturated aqueous solution of saffranin.
4. Wash in water.
5. Stain for fifteen minutes in a saturated watery solution of methyl violet.
6. Wash in water and wipe dry the slide but not the section.
7. Stain with the following solution: to 20 c.c. of acetone add drop by drop a saturated watery solution of orange G. until the flocculent precipitate which slowly appears on shaking is just dissolved in excess of the watery solution.
8. Pour off this solution when the section becomes clouded and repeat the process until a rather faint brownish-pink color appears.
9. Wash in acetone for a few seconds under a glass jar so that the section may not dry.
10. Clear in xylol and examine under the microscope to see if the stain has been successful. If satisfactory, wash in two changes of xylol.
11. Mount in xylol-balsam.

Bonney states that by this method "all chromatic elements, nuclcoli and certain nuclei, such as those of polymorphonuclear leucocytes, stain a rich violet, chromosomes standing out with peculiar distinctness. The spindle fibres of nuclear mitosis stain a faint pink. The cytoplasm stains a rose pink. The intercellular tissue stains a pale yellow. These effects are best seen if the slide be examined through a deep blue screen."

Hereditary Syphilis and the Spirochaeta Pallida. *L'Histologie pathologique de la syphilis héréditaire dans ses rapports avec le spirochète pallida.* LEVADITI. (*Ann. de l'Institut Pasteur*, vol. xx., No. 1., p. 41.)

The spirochete pallida was first found in the organs of newborn heredo-syphilitics by Buschke and Fischer and described by them in the *Deutsche Med. Wochenschr.* May 18, 1905, p. 791. Since then Levaditi, Hoffmann, Babes and Panea, Bodin, Nigris, Bronnum, and others have confirmed this earliest observation.

In the present communication Levaditi describes in detail his minute histological examination of four heredo-syphilitic infants. His pathological technique depends upon the impregnation of the tissue *en bloc* with nitrate of silver in the following manner:

1. Fixation of fragments of organs (about 1 mm. in thickness) in 10% formol for 24 hours.
2. Wash and harden in alcohol at 96° C. for 24 hours.
3. Wash in distilled water for several minutes.
4. Impregnate the specimen with solution of argentic nitrate (1½ 3%) at 38° C. for three to five days.
5. Wash in distilled water and place for 24-48 hours in the following solution:

| | |
|-----------------|------------|
| Pyrogallie acid | 2-4% |
| Formol, | 5 c. c. |
| Distilled water | 100 cm. c. |

6. Wash in distilled water.
7. Dehydrate in alcohol.
8. Xylol.
9. Harden and cut in paraffin.
10. Color the section by the Giemsa method or by the toluidine blue, glycerine-ether (Unna) stain.

The first baby died a half-hour after birth without macroscopical evidence of his disease; the second and third on the day of their birth, both showing bullæ over their bodies; and the fourth, who did not develop his disease objectively until the end of the second month, succumbed one month later.

From the study of these four cases Levaditi draws the following conclusions:

1. The influence of the spirochete pallida on the genesis of the visceral and cutaneous lesions of hereditary syphilis is certain. The organisms appear in numerical abundance in the respective organs in the following order: liver, lung, supra-renal capsules and skin, and these same organs are in the same sequence macroscopically affected by the disease.

2. The rapidly fatal cases reveal the greatest number and the widest distribution of the organisms.

3. In case of maternal origin the spirochete enters through the blood stream because the liver, the first organ which placental blood reaches, shows the greatest number of organisms and the profoundest pathological changes.

4. Although the blood brings the infectious organisms, they do not choose this medium in which to develop, but rather the parenchyma and the connective tissue of the organs. The glandular epithelium is their favorite habitat. [This fact Levaditi regards as especially important and one which confounds our previous ideas that the vascular system is the most profoundly affected by syphilis.]

5. The spirochete acts as a direct agent in pathogenesis and not through its toxins.

6. Maceration in the syphilitic infant is not a direct result of the invasion of spirochetes, but is due to autolysis in the dead body. In such a case the spirochetes are few in number and irregular in distribution.

7. It is phagocytosis that the body relies upon to combat this spirillary invasion.

8. The finding of the spirochetes free in the bronchi, in the renal epithelium, in the papillæ of the skin, and in the bullæ on its surface add more data to our knowledge of the spread of the disease.

BOOK REVIEWS.

A Practical Treatise on Sexual Disorders in the Male and Female, by ROBERT W. TAYLOR, A.M., M.D. Formerly Clinical Professor of Genito-urinary Diseases at the College of Physicians and Surgeons (Columbia University), New York. Consulting Genitourinary Surgeon to Bellevue and to the City (Charity) Hospitals, New York. Third Edition, thoroughly revised, with 130 illustrations and 16 plates in color and monochrome. *Lea Brothers and Co.*, New York and Philadelphia, 1905.

The appearance of a third edition of Taylor's book within a short time after the second, sufficiently demonstrates that it has been appreciated by the profession and has filled a real want. In a comprehensive manner it introduces to the reader a number of subjects which are not mentioned at all, or very indifferently treated in any other class of books. The author has certainly fulfilled the promise given in the introductory chapter, to treat the disturbances of the sexual functions on a practical but scientific basis, founded on anatomy and physiology, at least in regard to the male sex. The anatomy and physiology of the male sexual organs occupy pages 20 to 94; their description is amply supplied with illustrations and plates, partly original, partly copied from other works. The pictures as a rule are well chosen and executed, although plate III. showing the "cut-off" muscle seems rather crude and poor. Then follow chapters on impotence—psychical, symptomatic, atonic, and the different forms of organic impotence; further on, sterility in the male, azoöspERMATISM and asPERMATISM. The influence of affections of the urethra, of the prostate, the seminal vesicles, and of varicocele on the sexual functions are considered in chapters XVII to XX. The author's wide experience and powers of observation become particularly evident in the following portions: treating of masturbation, sexual excesses and sexual erethism, spermatorrhoea, real and imaginary, sexual worry, hypochondriasis and sexual neurasthenia. The practical and common sense views expressed therein deserve particularly to be commended and to be recommended to the practitioners. Chapters XXIV to XXVII on *coitus reservatus vel interruptus*, priapism and sexual perversion end the consideration of the sexual disorders of the male.

The sexual organs of the female are by no means handled with the same completeness or exhaustiveness, although four new chapters have been added, namely on pruritus of the vulva, herpes progenitalis in women, gangrene of the vulva and injuries to the female genitals in coitus. The anatomy and physiology neither of the internal nor of the external sexual organs has been considered. Sterility in the female, vaginismus and masturbation in the female are reviewed in a more general way; the rest of the book is devoted to more or less local affections mostly of the vulva, some of them of rare occurrence. As they, as a rule, are not considered in other books on dermatology or gynecology, it is quite convenient to have them described in a thorough manner. The prominence given to herpes suggests a similar chapter on herpes progenitalis in the male since this affection frequently becomes a cause of worry to the patient and a profitable field to the quack. The book is rather free of printer's errors, but on page 448 "labia majus" has escaped the proof-reader.

H. G. K.

Malformations of the Genital Organs of Women, by CH. DEBIERRE, Professor of Anatomy in the Medical Faculty at Lille, with 85 illustrations. Translated by J. HENRY SIMES, M.D., Emeritus Professor of Genito-urinary and Venereal Diseases in the Philadelphia Polyclinic, Philadelphia. *P. Blakiston's Sons and Co.*, 1905.

The French book, of which a translation is here published, is apparently not of recent origin, to conclude from the fact that no newer literature is cited than 1891. In the preface of the little book the author states that the scientific consideration of deformities in general has become possible only since anatomy and particularly embryology have been built upon a strictly scientific basis and since it has been recognized that all malformations from the slightest to the most serious are essentially phenomena of the same order, i.e. deviations of the normal specific type caused by a change in the embryonic and foetal evolution. In writing a new history of the malformations of the genital organs of woman the author was prompted or attracted by a certain attraction or curiosity which belongs to the subject and by the scientific and practical interest at the same time. Apparently to serve the latter purpose some abstracts from general literature have been introduced which are hardly befitting the scientific character of the book. Of the 182 pages about 50 treat of the normal anatomy of the genital organs and about ten pages of their development; then the malformations of the organs are seriatim described supplemented by chapters on the pathogenesis of malformations of the uterus, vagina and hymen and on hermaphroditism. In the illustrations on pages 168 and 171 as well as in the text on page 173 we read several times of a "labium majorum."

H. G. K.

The Effects of Tropical Light on White Men, by MAJOR CHAS. E. WOODRUFF, A. M., M. D. Surgeon U. S. Army. *Rebman Company*, New York and London, 1905.

The author announces in his preface that the present volume is the result of his search into the data to prove or disprove the theory advanced by von Schmaedel, in a paper read before the Anthropological Society of Munich in 1895, that skin pigmentation of man was evolved for the purpose of excluding the dangerous actinic or short rays of light which destroy living protoplasm. Having massed together all the data tending to support this idea the author makes many practical deductions as to the harmfulness of over-lighted schoolrooms, workshops, the dangers incurred by blondes in migrating to the tropics, even the search for the light of Southern California or Florida is liable to make neurasthenics worse instead of better.

The rules for white men in the tropics is the most practical part of the book. Although possibly extreme in the advocacy of the author's special views, the book is most interesting reading, especially the part devoted to the migration of peoples.

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ERYTHEMA PERSTANS, WITH REPORT OF TWO CASES INVOLVING CIRCINATE LESIONS

By GROVER W. WENDE, M.D.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

IN the present paper, two cases of erythema perstans, occurring under my own observation, are reported, together with similar cases previously noted by other observers. It is believed that the identity of these several cases will be obvious, and that the claim of their variation from other types will be admitted as logical.

John M., aged 28; blacksmith; all of the family unusually long-lived; father killed by accident at the age of 78; mother still living at the age of 80; two brothers and three sisters, all enjoying the best of health. The disease has existed for four and one-half years. No sickness preceded the skin manifestations; in fact, the patient has never complained of illness. The eruptions appeared simultaneously upon the arms and legs, rapidly increased in number and soon spread over the abdomen. It was noticed that the lesions gradually developed from a red spot to a ring, a process accompanied by intermittent itching. For the past six months their form has varied but slightly. At no time since the disease began have the abdomen or the extremities been completely free.

Examination—The disease occupied an area extending from a point three inches above the nipples to the groin. The lesions began to be abundant about two inches below the nipples, became most marked in the vicinity of the umbilicus and gradually diminished on the lower part of the abdomen. They varied in size from that of a pea to three inches in diameter, and were violet-red in color; the larger ones were well-defined, the edges being especially sharp. Where the patch was narrowed, a slight thickening was apparent. The lesions were of long duration. The larger patches were made up of rings, or segments thereof, forming gyrate or serpiginous

figures. The smaller ones were elevated. They were not nearly as numerous on the back as in front. The patches on the forearms occupied the inner side, and were most numerous between the wrist and the elbow. They were oval, coalescing in gyrate or irregular forms, and varied in size, the largest measuring about four inches. The surfaces of the lesions were faulty, rough, covered with fine scales, and somewhat brighter in tint than those upon the abdomen. The thigh-lesions were most abundant on the inner side and were virtually symmetrical. While there were scarcely any patches on the posterior side, on the outer side they were numerous. They were oval, broader than those on the trunk and, as on the legs, were more numerous, the patches being irregular and inclosing a slight amount of pigmentation. This was especially true of those below the knee.

This patient was for two years continually under observation, and received various kinds of treatment. As regards the external, the only remedy which appeared to influence the eruption was an ointment of chrysarobin. Internally, arsenic in various forms, and salicin, were administered without special result. On December 15th, 1905, another examination was made, showing that the condition presented about the same appearance. Patient stated that the body was almost free from eruption during last summer, but grew worse at the onset of cold weather.

The following case was that of a patient of Dr. Ruggles, of Rochester, to whom I am indebted for a report of the attendant clinical facts: C. S., age forty-three; tall and well built; born in the United States; traveling salesman.

Family History.—Father died from heart disease at the age of fifty-two weighing 290 pounds; the other members of the family were very large; mother died from cancer at the age of sixty-seven; two sisters and one brother, all healthy; no history of skin disease in the family.

Personal History.—During boyhood, the patient was not invariably healthy; had an attack of pneumonia at the age of twenty-five, and an attack of herpes at the age of thirty-eight; was subject for two years to a well-developed eczema; for the greater part of his life has been affected by what he called "hives"; has never been infected with syphilis; is of active, nervous type and very intense. In January, 1905, was alarmed by a mistaken diagnosis of cancer, from which he suffered for two months. Just before the present outbreak, the diagnosis was modified, resulting in his mental relief.

History of present skin disease.—The lesions made their first appearance upon the testicles, in March, 1905, while patient was traveling from Cuba to Mexico. Soon after returning, he noticed an eruption on the scrotum, accompanied by swelling, the eruption

gradually extending to the thighs, legs and feet. It began as a reddish papule with raised edges, and continually enlarged. At times, the central part of the majority of the lesions would heal, while the edges would continue to develop. The eruption has always been in evidence, but, at times, would almost disappear.

Notes of an examination by Dr. Ruggles, July 24, 1905: There were numerous circular and gyrate lesions, varying in size from small papules to a lesion about six inches in diameter, which occupied the anterior part of the right ankle. The central portion of the lesion was normal in texture, but slightly pigmented, flattened in some instances and raised in others. The gyrate lesions were elevated, slightly uneven and varied in color from livid to bright red. The subjective symptoms were slight, except that, occasionally, the feet were subject to intense itching, accompanied by swelling. The chest and the abdomen were practically free from lesions; these were sparsely scattered upon the upper portion of the back, were more frequent upon the shoulders and arms, were thickly grouped upon the buttocks and thighs and were less frequent upon the legs. The folds of both knees, and the anterior part of each ankle, were occupied by large, irregular lesions: symmetrical distribution was a characteristic feature. The skin of the scrotum was considerably thickened, and of dark color. The lesions were covered by branny scales. One month later, there was considerable extension of the eruption: the lesions covering the ankle having increased about one inch in diameter, retaining their dark color. Two weeks later, during a trip to the South, when subjected to marked changes of temperature, with a maximum of about 40 degrees, there was a fresh exacerbation, and, on his return home, October 25, there was a marked change in the character of the eruption. The lesions were considerably larger and less elevated, and the contrast with the normal skin was less striking. They gave evidence of disappearing, although the change to a colder temperature caused the affection to manifest itself at the same sites. During the entire period that the patient was under observation, lesions comparatively evanescent appeared.

Histology.—A biopsy was made, a small piece of tissue being removed from the left flank. This was fixed in alcohol, and after having been stained in various ways, showed the following microscopical appearance: The stratum corneum was irregular and somewhat thinner than normal. The cells were widely separated. The stratum lucidum was scarcely discernible; only a few eleidin granules could be found. The stratum mucosum was thickened and the cells in the neighborhood of the sweat-channels were distended, present-

ing the appearance of œdema—probably due to the dilatation of the intraepithelial lymphatic spaces.

The leading pathological changes occurred in the corium. The blood vessels of the papillary layer were markedly dilated, but the walls were not affected, except by the swelling of the endothelium. The blood vessels were surrounded by a cellular infiltration of a purely inflammatory type, consisting of leucocytes, connective tissue-cells, plasma cells, and, occasionally, a mast cell. The fibrous elements of the layer were separated, suggesting œdema. The elastic tissue was normal in amount, but the fibrillæ were very minute; in the lower portion of the corium they were unaffected. The pilosebaceous follicles appeared healthy. Around the sweat-apparatus was a marked infiltration, corresponding to the one surrounding the blood vessels, and the walls seemed slightly thickened. The general histological picture of the sections presented may be considered as a simple vascular disturbance of a purely inflammatory type. It is interesting to note the infiltration about the sweat-apparatus. It should be understood that the biopsy related to an old lesion. The more evanescent lesions were not examined.

The cases under consideration are not readily classified. It is probably better to place them by themselves, or, perhaps, with other forms of persistent erythema. Few cases like these are recorded, although there are several which closely correspond to them in their principal features. One would naturally think of erythema multifforme; notwithstanding there are many features in which these cases differ from the chronic form of that affection, and from the many peculiarities in its ring-formation. Nothing was noted of concentric rings with variegated colors, so characteristic of the usual type of erythema multifforme.

Report by Dr. T. Colcott Fox (International Atlas of Rare Skin Diseases, Part V, 1901), of a disease designated by the name of Erythema Gyrratum Perstans. The patient was exhibited at the International Congress of 1881, being one of the two oldest of a family; a brother, aged nineteen years and six months, and a sister, aged eighteen, had the same disease from early childhood. Nothing in the family history to throw any light upon the cause of the disease. Dr. Fox limits the description to one of the two, on account of the strong similarity, but says that the attacks were more severe in the brother.

“The eruption begins by the evolution of scattered, slightly-

raised erythematous papules, about the size of a millet-seed, effaceable by pressure and accompanied by itching. The papules quickly extend centrifugally. At the center, the redness soon subsides. The erythematous border is narrow and only slightly raised. The affected area is covered with a slight desquamating surface. The rings continue to enlarge to the size of the palm of the hand, meet other similar rings and fuse together, forming gyrate figures." The patient had recurrent outbreaks about once in three months, which lasted from two to six weeks, according to their severity, but the skin was never absolutely free. The palms, soles, face, neck, and scalp were never affected. The doctor associates the outbreaks with changes in temperature. When an attack is intense, the macules multiply quite rapidly: when less intense, the development is more deliberate. Dr. Fox had the patient under observation until he arrived at the age of twenty-nine, the disease, during the entire period, remaining essentially the same.

He concludes by saying that the condition is unique in his own experience, and that it reminds one of erythema multiforme, but does not really belong to that class. He excludes urticaria, as well as a number of other diseases with which it might be confounded. He does not approve of the title, but fails to suggest another name for the condition which he calls "Persistent Circinate Pruritic Dermatitis."

Dr. J. M. Finny (*Medical Press*, January 21, 1903, p. 51), records a case, with two illustrations, of a young grocer aged twenty-one, whose general health was good, with the exception of indigestion, and who was suffering from an erythematous eruption made up of pink-red elevated lesions, some linear, some curved and some segmentary, others manifesting themselves as spots and patches. They were symmetrically distributed and occupied the entire body, with the exception of the exposed parts. The glands in the groin and right axilla were enlarged.

The disease made its first appearance in August, 1899, and has since persisted in greater or less degree. The patient stated that his legs were the parts most affected, and that the lesions varied according to temperature, being especially affected by cold, when they would become hard and grow darker. The legs were swollen from the ankles to the knees. The eruption was itchy, especially at night, and would vary, at times almost fading out—frequently changing its pattern, but always persistent.

Dr. Finny considers that the present case differs from urticaria, psoriasis and eczema. He regards the case as a variety of erythema multiforme, but, by reason of its "persistence and peculiarities," somewhat removed from the ordinary varieties.

In comparing my own cases with those cited, all are found to possess features in common. The patients are healthy and nothing was discovered in any one of them calculated to produce the disease, except that the eruption seemed to be influenced by cold, which is to be expected in connection with every type of erythema. The fact that the lesions were evanescent is far from contradicting the diagnosis. Erythema and urticaria—the two marked types—are in close resemblance, the cause often being identical.

In all the cases there was a persistent erythema, with few variations which seemed to depend upon the intensity of the evolution. It is an interesting fact that two members of the same family were similarly affected. Some of the lesions would seem to disappear spontaneously, without special reference to size or age, while the principal ones would continue to develop, showing only a local inflammation at the periphery, without the formation of other primary lesions at the border.

The chronicity of the eruption depends on successive outbreaks in some of the lesions. The fact that the lesions remain in the same spot, and only enlarge by peripheral extension, should be emphasized. One would often see at the same time circinate, annular, discrete and confluent gyrate lesions, appearing roughly symmetrical. In my own cases, the lesions were more evanescent upon the abdomen. The extremities, forearms and backs of hands and legs showed the oldest ring-lesions, or remnants of the same: in fact, they seemed to differ but little from those upon the limbs. There was slight subjective sensation, although this seemed to vary, being almost absent at times, and, at others, quite marked. In the case of each patient the treatment seemed of little value, the affection resisting all reducing agents. The results of internal treatment were also indifferent.

In the different varieties of erythemata, the affection changes from a simple reddening of the skin to a swelling, to the formation of papules and vesicles, to effusion causing bullæ, and to hæmorrhages and desquamations. Any, or all, of those lesions may occur. They are found among the acute, non-contagious, inflammatory diseases of the skin, of which erythema multiforme is one of the chief representatives. The course is sufficiently characteristic: the dis-

ease passes in from one to four weeks. The influence of treatment is merely nominal.

Medical literature instances cases of erythema that remain for weeks, months, or even years, without marked changes in the primary lesions. There are alterations in type and character, which alone would be sufficient to prove that they present distinctive features, especially as relates to contradictions in their course to the typical groups of erythemas; some of those have been sufficiently marked to suggest distinctive names to the observers reporting them. Their number, however, is not only relatively small, but the single cases differ to such an extent among themselves that it would be difficult to adopt a special classification. Consequently the chronic forms of erythemas, in respect to cause, localization, contingencies and therapeutical influence, are so essentially distinguished from the established forms, that we have no adequate reason for placing them with the present existing variations, or for associating them with other chronic conditions where the evidence is less pronounced.

A patient has been under my observation for the last ten years in whom the affection develops in the fall and at the onset of cold weather, and lasts until spring. The attack manifests itself in well-defined patches varying in size from a papule to a fifty-cent piece; developing very slowly; at times some of the lesions show rings or segments thereof. They are usually located on the back of the hands, and, twice, a few lesions appeared upon the face. The affection is probably due to cold weather. This case undoubtedly belongs to a variety referred to by Dr. Corlett in his interesting paper on "Cold as an Etiological Factor in Diseases of the Skin"—(*JOURNAL CUTANEOUS AND GENITO-URINARY DISEASES*, Vol. xii., 1894, p. 458.)

Dr. Wilfred B. Ward (*British Journal Dermatology*, May, 1903, p. 161), states that the various erythemas may determine the changes in certain predisposed individuals where lupus erythematosus develops later. Among the cases cited, was one which appeared as a persisting erythema and subsequently developed into lupus erythematosus. As might be expected, feeble circulation may precede the development of that particular affection.

Dr. J. F. Payne (*British Journal Dermatology*, Vol. vi., 1894, p. 129), reports a series of cases, five in women, varying from seventeen to sixty-five, and two in men, from twenty-two to forty-seven. He says: "We have an erythematosus affection which remains fixed

on certain parts of the skin for weeks, months, or even years, without alteration of type." He considers that many of the reported cases agree with the erythema scarlatiniforme of the French. Judging from the description given by Dr. Payne, there might have been, in one case, a strong resemblance to lupus erythematosus, but there was no evidence of progressive destruction of tissue. Another case he considered as belonging to recurrent erythema multiforme in which the lesions persisted for weeks at one locality, uninfluenced by treatment.

Dr. T. J. P. Hartigan reports two cases of erythema perstans, before the Dermatological Society of Great Britain and Ireland (*British Journal Dermatology*, Vol. xvi., December, 1904, p. 468). One patient was twenty-nine years old and had been affected for six years. The condition appeared as patches upon the forehead, and, later, upon the face, ears, neck, hands and chest. The integument was thin, but there was no scarring. Case number two was that of a woman aged forty-six. This began six months previously on the neck, spreading to the ears and extending to the chin and cheeks. The patient was dyspeptic, nervous and subject to flushing after drinking tea. The eruption was also aggravated at the premenstrual epoch.

Among other types of persistent erythema, the following may be mentioned:

Drs. H. Radcliffe Crocker and Campbell Williams (*British Journal Dermatology*, Vol. vi., 1894, p. 1). The authors propose as a group-name, that of erythema elevatum diutinum, and state that it refers alone to clinical features. The lesions are nodular, with a tendency to coalesce into elevated infiltrations, most marked upon the palms. They seem inclined to persist, but may undergo evolution. Four cases described by Dr. Hutchinson, in many respects correspond to the interpretation of Drs. Crocker and Williams. The cases of the latter were children and young adults. Dr. Hutchinson's cases were all men past fifty. The lesions were not influenced by treatment, increased in number and finally covered the entire body. A number of other similar cases were recorded. There was no definite suggestion as to the cause of the disease. Treatment was unsatisfactory.

Dr. Colcott Fox presented a case before the Dermatological Society of London (*British Journal Dermatology*, Vol. xi., 1899, p. 158). The patient was twelve years old. Here the erythema only extended

to the face, on both cheeks. The lesions were violet in color and appeared in symmetrical patches, about the size of a half dollar, without the presence of vesicles. Dr. Fox states that the duration was two years and there had been a gradual excentric spread from a small lesion. The nature of the condition is unknown, but lupus erythematosus could be excluded. The girl was healthy, but had a poor appetite.

Dr. Ed. Arning (*Archiv für Dermatologie und Syphilis*, May, 1898, p. 11), reports a case under the name of erythema perstans pseudoleprosum. The patient was a young lady who suffered from a marked functional nervous condition, covering a considerable length of time. During this period she had a persistent erythema of the legs. The slowness of its development was remarkable; the lesions attaining the size of a dollar in about four months' time and being most pronounced at the border. The greater part of the anterior surface of the tibia was covered by coalescent lesions, causing œdema of the legs. The patches also developed on other parts of the body. Dr. Arning says that this case corresponds to the incipient stage of leprosy, but could be excluded from that disease with certainty. Its duration was over eight months.

Dr. James M. Winfield (*JOURNAL CUTANEOUS DISEASES*, December, 1904, p. 587), showed a case of erythema perstans before the New York Dermatological Society—that of a girl thirteen years old. The affection began in 1903, upon her face, hands, and wrists, being red in spots. In September, 1904, the face was uniformly red, except over the malar prominences, and the same condition existed on the neck and the chest. The wrists, hands and elbows were covered with small erythematous spots. All of the redness disappeared upon pressure. The patient complained of heat and itching. There was nothing in the history of the case suggestive of a cause. Menstruation had not as yet been established.

Under Xantho-erythrodermia Perstans, H. Radcliffe Crocker (*British Journal Dermatology*, April, 1905), notes a form of disease which he believes has not yet been described. The eruption begins as pale-pink or yellowish patches, on the limbs and trunk, and the patches develop very gradually, being, as a rule, symmetrically placed. The duration of the disease varies from a few months to many years.

A case was shown at the Dermatological Society of London, and among those present were Drs. Hallopeau, Gastou, Jacquet and

Pautrier, who admitted that this condition was new to them, but did not regard it as a form of parakeratosis variegata.

Conclusions.—We are now dealing with a variety of skin affections which may be included under the general name of erythema perstans, and which have points both of difference and of similarity. In some, there are simple chronic inflammatory patches, in others diffused patches, papules or nodules; frequently, evolution begins in the center and leaves annular or gyrate figures.

There seems to be no law governing their duration, since they may last weeks, months or years, or even during the entire life of patient. The etiology may still be considered as obscure, although the suggestions relating thereto are numerous. No age is exempt; cases have been reported in children and in those advanced in years. The condition seems to be more frequent in men than in women.

The study of the cases reported shows that the condition may be caused by intestinal toxæmia, gouty or rheumatic diathesis, and atmospheric changes.

The limited number of microscopical examinations that have been made, reveal slight differences. In all the cases, we have a superficial inflammation, dilatation of blood vessels, infiltration of cells and the association of an œdematous condition.

DISCUSSION.

DR. JOHN A. FORDYCE said he had seen two cases similar to the ones reported by Dr. Wende, one of which he had illustrated on the screen in the course of his exhibition of lantern slides during the previous evening, and of the other he had a photograph which he expected to show. In both of these there was a persistent erythema, in the one case on the back, in the other on the arm and thigh. One case lasted six months; the other one year. Whatever might have been the original cause of the eruption, Dr. Fordyce said his idea was that the condition was kept up by some paralytic disturbance of the neuro-vascular system. In an allied condition on the face, the patient was treated with the hyperstatic current, with excellent results; the persistent erythema disappearing after half a dozen applications. In another case of a relapsing erythema of the hands and face, the condition disappeared under the same treatment.

DR. J. F. SCHAMBERG mentioned a case of annular, persistent erythema of the thighs and arms in a young man, which, after lasting for about four months, disappeared under the use of chrysarobin.



DR. JAMES M. WINFIELD said that his case, to which Dr. Wende had referred, differed somewhat from those described in the paper. His patient was a girl fourteen years old. She had been referred to the speaker eighteen months after the eruption first appeared. The eruption began on the nose, and gradually extended over the face, it then spread over the neck and chest. Subsequently the wrists and arms became involved. Her family physician regarded it as an erythematous lupus.

The lesion was gyrate and serpiginous in outline, on a base of universal redness. There was some itching, especially of the arms and hands. The condition was always worse during the winter.

The patient was shown at one of the meetings of the New York Dermatological Society and some of the members expressed the opinion that the eruption might be caused by delayed menstruation.

This opinion was borne in mind and all treatment was directed toward the establishment of the menstrual flow. About three months ago, that is two and a half years from the onset of the skin disease, menstruation was established and the persistent erythema rapidly disappeared. He saw the girl last week and her face and arms were entirely free from eruption.

THE PRESIDENT, DR. WILLIAM T. CORLETT, referring to the class of cases he had described some years ago, in which the eruption was apparently provoked by cold weather, said that in his last contribution on the subject he had called attention to the fact that the eruption approximated the erythematous group more closely than it did the eczematous, as he had first supposed. It further presented some features in common with the type to which Mr. Hutchinson had called attention, in which the lesions were associated with chilblains, cold hands and feet.

DR. WENDE, in closing, said he thought the cases mentioned by Dr. Fordyce and Dr. Schamberg were identical with his own. In his paper, he had attempted to combine all cases of persistent erythema in a single group. While they might differ clinically, there were no marked variations in the microscopic findings.

A CASE OF CHRONIC ULCERATION IN THE PUBIC AND INGUINAL REGIONS.

By S. POLLITZER, A.M., M.D., New York.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

THE patient whose disease forms the subject of this paper was brought to my office by Dr. H. Rodman of this city, on July 7, 1905.

He is a native of the United States, male, thirty-five years old, married about a year, a railway employee.

He is a large man, whose normal weight is over two hundred pounds, with fair hair and skin. He has always enjoyed good health. The nature of his occupation requires him to travel extensively, but he leads as far as possible a regular life. There is nothing in his family or personal history worthy of note; he denies any venereal infection.

His present illness began in Richmond, Va., on October 29, 1904, when his attention was attracted by a little smarting to a small blister on the glans penis. He had a few days before left Raleigh, N. C., where he recalled having several times made use of a very dirty water-closet, and he ascribes his illness to an infection acquired there. He washed the affected region and applied a little vaseline, paying no further attention to it. In the course of ten days, however, the blister was transformed into an ulcer. He then consulted a physician, who told him there was nothing specific about the sore and prescribed a lotion. Within a few days a number of small "mattery sores," as he describes them, appeared on the glans. The patient then saw another physician who cauterized all the lesions. Shortly after he noticed a small vesicle in the pubic region over the symphysis from which a sanious fluid was discharged. About this time the patient suffered from a severe supra-orbital neuralgia on the left side and frequently pressed and rubbed his forehead with his hand to relieve the pain. A few days later he noticed a small vesicle like that on the pubis on the left side of his forehead. This vesicle soon broke down into an ulcer, which increased greatly in area and was finally healed, after several months, on the application of a salve prescribed by a physician in Savannah, leaving a large cicatrix. Meanwhile the sores on the glans were treated by a variety of appli-

cations, such as black wash, peroxide, etc., and finally healed, leaving scars.

The sore on the pubis, however, proved rebellious to treatment, increasing in area and attaining the size of a silver dollar. In March, 1905, the patient went to Hot Springs, Ark., where he spent nearly three and a half months under the care of Dr. H. P. Collings, who has very kindly communicated to me his views on and treatment of the case. Dr. Collings regarded the ulcerations as chancroidal, though he noted several points in the appearance of the ulcers which seemed to oppose that diagnosis. His treatment consisted of tonics internally, principally iron and for a short time mercury and iodides. Under the specific treatment the ulcers seemed to grow worse and the treatment was soon stopped and iron preparations were resumed. Locally, a variety of applications were made, ranging from cauterization with zinc-chloride to packing with boric acid. The applications which seemed of most benefit were pyoktannin and argyrol. During this period the condition seemed at times to improve and again to grow worse. Healing ulcers would suddenly break down at their margin and several new ulcers developed, starting as small yellow "blisters" under the skin, which rapidly broke down into new sores. The last of these developed on the upper part of the right thigh. The patient states that he has lost about thirty-five pounds in weight since the beginning of his illness.

Examination of the patient disclosed a group of twelve ulcers in the pubic, both inguinal, and the upper right femoral regions: and an irregular, flat, depressed scar about three by six centimeters in the left temporo-parietal region. On the glans penis five irregularly round, flat, depressed scars, one to one and a half cm. in diameter were disclosed. The ulcers in the pubic and inguino-femoral regions varied in size from a diameter of three mm. in the smallest to four and a half cm. in the largest. In the right inguinal region, a group of small ulcers appeared like the broken down perforations of a large underlying cavity, the surrounding region œdematous and bright red in color. In the middle line the skin of the pubic region was deep red, smooth, hard, and cicatricial in character except where it was broken down into ulcers. One of these just above the abdomino-pubic fold had the appearance of a narrow slit fully two and a half centimeters in depth. In this cicatricial tissue there were several tumor-like hemispherical masses the size of a pea—evidently the result of the epidermization of former masses of exuberant granulations. There was an ulcer about one and a quarter centimeters in diameter on the dorsum penis just below its junction with the pubic tissues. The largest of the ulcers, two and a half by four and a half cm. was located below Poupart's ligament on the upper anterior aspect of the right thigh. In general character the ulcers are similar. Their

margin is fairly regular, greatly infiltrated, generally deep red in color; the sides of the deeper ulcers are nearly vertical, not noticeably underlined; the floor of the larger ulcers is irregularly flat with occasionally a deeper pit, and like the walls, covered with grayish necrotic matter. The secretion is scanty, sero-purulent, and has a pronounced stale or putrid odor. *The inguinal and femoral lymphatic glands are not enlarged nor tender.* Physical examination of the heart, liver, lungs, and kidneys, proved negative; the spleen was not palpable. Temperature in the rectum was 100.5 F.; pulse 86.

The patient was sent to the German Hospital in this city for further observation and treatment. Throughout his seven weeks' stay at the hospital, his general condition remained good. He was put to bed, and after cleansing the ulcers superficially, they were covered with a wet dressing of aluminium acetate solution, for which a weak potassium permanganate solution was substituted after a few days. Under this treatment the appearance of the ulcers improved considerably. Their necrotic floor assumed a more normal red color, healthy granulations appeared, the infiltrated border became flatter and the peculiar rotten odor disappeared. The group of small ulcers in the right inguinal region were converted into one large healthy looking ulcer.

For purposes of diagnosis cover-glass spreads and cultures on various media were made from the surface of the ulcers. In this examination I had especially in mind actinomyces, coccidia, blastomyces, the Ducret-Unna bacillus of *ulcus molle*, and the bacillus mallei. But the spreads and cultures, except for a single colony of a bacillus to which I shall recur presently, yielded only the usual crop of saprophytic organisms. Five days after the patient's admission two small yellowish blisters were observed, one in the cicatricial tissue of the pubic region above the penis, the other in the right inguinal region, both about one and a half centimeters from the margin of the nearest ulcer. The one in the pubic cicatricial tissue appeared very irregular in outline like a little lake of pus under the epidermis which was not at all raised; the one in the healthy tissue in the inguinal region was a small round, slightly raised rather flaccid vesicle. The patient states that the ulcers all started in this way—from a yellowish blister. The surface of these blisters was carefully sterilized and they were then punctured with a probe which easily passed into a small cavity filled with a stringy, purulent fluid. Spreads and cultures from this fluid showed it to contain in pure culture a bacillus like that of the single colony referred to above.

I am indebted to Dr. O. Hensel, pathologist to the hospital, for the following report of the result of his examination of this organism.

The fluid from a small unbroken abscess contains in pure culture a bacterium with the following characteristics:

Broth—General turbidity, with formation of a pellicle after twenty-four hours. The fluid later became stringy.

Glucose-broth—No gas in formed.

Gelatine is liquified.

Agar—A heavy white smear with smooth, shiny surface. After about a week the edges of the smear are greenish, later the entire growth has assumed a pale green hue which extends into the depths of the medium and here becomes a brownish-green.

It was found that sub-cultures made from the original, change color more rapidly, so that they appear green after twenty-four hours. A peculiar putrid odor was manifest in the original culture, but this too became less noticeable in the later cultures.

On Dunham's peptone no indol is formed.

Neutral-red agar is not decolorized.

On potato the growth is yellowish-white, moist and very apparent after one day.

The color of litmus-whey is not changed.

On Barsickow's medium there is simply general turbidity.

On Conradi-Drygalski the bacillus did not grow.

The bacillus is non-motile and gram-negative.

Cover-slip preparations of young cultures show long slender bacilli with rounded ends and unstained areas. They do not occur in chains, but often appear side by side. Their morphology suggests in many respects the bacillus of glanders. True spore-formation does not seem to be present. Older cultures show pronounced pleomorphism: the individual bacilli are no longer well-defined, but instead long and irregular threads are present.

One centimeter of a twenty-four-hour broth culture was injected into the peritoneal cavity of a male guinea-pig. The animal died after forty hours and at autopsy some free fluid was found in the peritoneal cavity, and the lungs were congested. The testicles were slightly swollen, but there was no abscess formation and they showed no signs of malleus on microscopic examination. The bacillus recovered from the peritoneal fluid and the heart blood of the animal showed the same characteristics as above. A second guinea-pig treated with the bacillus recovered from the first died within twelve hours, but showed the same anatomical changes, though the

testicles were not affected in any way. A control animal treated with a pure culture of *B. Mallei* gave evidence of all the typical lesions of glanders such as are seen in guinea-pigs.

I have not been able to identify this bacillus. It is apparent from its characteristics that it does not belong to the pyocyanous group with which, however, it shares some important features. Its resemblance to the *B. Mallei* is quite close, its principal point of difference being in the nature of its pathogenicity for guinea-pigs, and in production of the green pigment. Should future studies establish this organism as a new variety I would suggest for it the name *B. malleoides*.

I may be permitted to refer here to the results of the histological examination of tissues cut from the border of the ulcers. Specimens showed absolutely nothing characteristic. The epidermis near the ulcer was proliferated and the cutis densely infiltrated chiefly with polynuclear round-cells; plasma-cells were not noted; a few scattered giant-cells were observed; the walls of the vessels were thickened; sebaceous and coil glands presented nothing worthy of note. In short, the picture is the usual one of granulation tissue in a chronic inflammatory process of the skin. The search for organisms in the tissues was prolonged and tedious. It was finally rewarded by the finding of a few bacilli in appearance like those which have been described above, at a point in the middle cutis some little distance from the wall of an ulcer. Their location did not militate against the view that they were the causative agent of the disease. Examination of the inguinal lymph-glands showed them to be practically normal.

The case was evidently not one for treatment with superficial applications and radical measures were resolved upon. On July 17th an operation for the total extirpation of the ulcer-bearing region was performed with the assistance of Dr. H. Fischer adjunct-surgeon and the staff of the hospital and in the presence of Dr. Klotz, Dr. Torek, Dr. Rodman, and others. Before operating a number of pieces of tissue from various portions of different ulcers was cut out for histological examination. Then the surface of each ulcer, floor, walls, and border was thoroughly cauterized with a broad Paquelin cautery. The lines of incision were made so as to pass through healthy tissue at least two and a half centimeters beyond the border of the nearest ulcer. The incision beginning near the anterior superior spine of the ilium on the right side passed somewhat obliquely downward and across the abdomen to a point half

way between the left iliac spine and the symphysis pubis, thence downward on the left thigh to a point four centimeters below Poupart's ligament, then obliquely upward, and across the upper part of the scrotum and the dorsum penis, thence downward and outward on the right thigh to a point about seven centimeters below Poupart's ligament, thence obliquely upward and outward to the point of origin near the anterior superior spine of the right ilium. The incision was carried down to the underlying muscles and fascia and the flap was carefully dissected off in its entire thickness, exposing muscles, fascia, and the right spermatic cord and iliac vessels as in an anatomical dissection. On drawing forward the loose skin of the penis a small suspicious-looking patch was disclosed on the dorsum of that organ, consisting of minute granulations in a deep red, congested area. This area was excised with curved scissors and treated with the Paquelin. An attempt was made, with some degree of success, to reduce the enormous area exposed by bringing together the sides of the wound at its angles with the aid of large incisions on the outer side of the ilium and across the abdomen below the umbilicus for the relief of tension. The exposed area on the dorsum penis was covered by flaps taken from the scrotum. Comparatively little blood was lost during the operation. The wound was dressed with moist, sterile gauze, and the patient was brought to bed in good condition.

Two weeks later, on August 3rd, the wound cavity having meanwhile partly filled up with healthy granulations, the exposed area was successfully covered by skin grafts taken from the thigh. While the wound thereafter gave no trouble and the patient was cured of the condition for which he had sought relief, the further course of the case was not uneventful. About ten days after the skin grafting the patient complained of some pain and tenderness in the right testicle, which was noticed to be somewhat swollen. The condition was attributed to interference with the circulation, lymphatic and vascular, incident to the operation; but at the same time there was a rise in the body temperature to 101.6. The scrotum was suspended in a bandage and ice-bags were applied, but the swelling and tenderness persisted and the daily but irregular exacerbations of temperature became more marked, reaching 102.4 on August 21st and 22nd. An examination for plasmodia was negative. The testicle was uniformly enlarged, hard, smooth and the line of separation of the epididymis and testis not easily made out. An infection of the testis with the organism of the ulcers was feared.

An exploratory puncture into the affected organ brought out a small amount of slightly turbid fluid, which proved sterile on cultivation on broth, agar, and serum.

The patient left the hospital on August 25th for personal reasons, and a few days later entered the Garfield Hospital in Washington, D. C., where the affected testicle was removed on September 11th by Dr. Francis R. Hagner, to whose courtesy I am indebted for a report of the case and a portion of the diseased testicle. Before the operation, he writes, the testicle was very hard, regular in outline, and semi-fluctuating at the upper anterior portion of the tumor. At the operation the tunica vaginalis was found quite adherent and there was a slight amount of fluid in the region of the cord. The gross appearance of the testicle and the result of the microscopic examination made by Dr. Nichols, pathologist to the Garfield Hospital, and corroborated by my own examination, leaves no room to doubt that the affection of the testicle was syphilitic.

After the operation the patient admitted what he had before strenuously denied, that he had suffered from a venereal sore about the year 1893, for which he had been treated intermittently during a year.

The occurrence of a gummatous degeneration of the testicle naturally tends to create a suspicion that the ulcers of the skin also were gummata. I think this view wholly unwarranted by the facts. The appearance of the ulcers, their mode of development, the occurrence of a manifestly infective lesion on the forehead, and the final cure by surgical means speak emphatically against the diagnosis of syphilis. Not less clear is the evidence against a diagnosis of ulceration of chancreoid origin. The bacillus of soft chancre invariably seeks out the lymph-vessels and glands. In my case the lymph-glands contiguous to the ulcerated region were not affected at any stage of the disease.

To conclude, I cannot avoid the impression that we are dealing here with a hitherto undescribed form of disease. That the bacillus isolated is the cause of the ulceration has certainly not been proven, but there is a certain degree of probability in favor of that view.

DISCUSSION.

DR. A. RAVOGLI said he could recall quite a number of cases of ulcerative lesions involving or surrounding the genitals in which it was very difficult to establish whether they were tubercular or syphilitic, or the result of a mixture of both these diatheses. He mentioned the case



of a young colored man with an extensive ulceration of the kind described by Dr. Pollitzer. There were large ulcerated areas, with elevated, granulating edges, involving nearly all the skin of the penis, together with one-half the scrotum, and extending down on the thigh and up on the abdomen. It was diagnosed as a phagedenic ulcer, either tubercular or syphilitic in origin. The granulating surfaces were scraped, emplastrum hydrargyri was applied, and under this treatment, together with tonics and antisyphilitics internally, the man made a good recovery. In this case the ulcerations were probably syphilitic.

Dr. Ravogli also spoke of a woman with an extensive ulceration involving the vagina and pubes. She died, and the post mortem showed a tubercular peritonitis. In that case, sections of the granulating tissue had been excised and examined, and had failed to show tubercle bacilli. It was exceedingly difficult, the speaker said, to demonstrate the tubercle bacilli in the skin.

Dr. L. DUNCAN BULKLEY reported the case of a very intelligent man, some forty years old, who for ten years had suffered from a remarkable ulceration which had first involved the penis and scrotum, and then gradually extended over the pubes and both groins, the perineum and the anal region. For ten years it had been looked upon as of tubercular origin, and had been treated with the Finsen light and the X-ray. He usually spent two hours each morning dressing the wound. The diagnosis of syphilis had never been made, but after three months efficient mixed treatment, without any external applications except absorbent cotton, the patient was absolutely cured, and had remained so up to the present time.

Dr. Bulkley said that in all these cases the original lesion was much modified by the ordinary pus organisms, which were everywhere present. From the photographs shown by Dr. Pollitzer, he was inclined to believe that syphilis was a potent factor in the production of the ulceration.

Dr. J. NEVINS HYDE said it should not be hastily assumed that because two cases presented analogous features, they were identical. He had listened with much interest to the report of Dr. Pollitzer's case, and to the results of his bacteriological examination. In many respects the case was unique, and it had vividly recalled to his mind others that had come under his observation. In those cases, the ulcerative process was not syphilitic. The lesions had resisted the most vigorous and thorough anti-syphilitic treatment. They had been described under the title of chancroidal or lupoid ulceration of the groins, and the most satisfactory treatment that he had had any experience with was continuous immersion. The patients were placed in a carefully regulated hot bath, which they left only for necessary purposes, until the ulceration had cicatrized.

Dr. CHARLES W. ALLEN said he agreed with Dr. Hyde both in regard to the distinctive character of cases like that reported by Dr. Pollitzer, and of the efficacy of the permanent bath as a method of treatment of

such lesions, which had been described under the name of Kraurosis, and were probably the result of a mixed infection.

Dr. Allen said he would like to add a word in emphasis of what Dr. Bulkley had said in regard to keeping syphilis always in mind as a possible etiological factor. In that connection, he referred to a case that was now under his observation. The patient was a man with a mass of infiltrations in the groin, in the center of which there was an ulcer. The condition was a nondescript one—indolent, chronic, diphtheroidal, and honeycombed. The patient had at first denied syphilis, and the appearance of the lesion was not suggestive of that condition. Still, under vigorous anti-syphilitic treatment, and the use of black wash externally, the process had rapidly cleared up.

Dr. H. G. KLOTZ said he had seen Dr. Pollitzer's patient prior to the operation, and the case certainly did not exhibit the usual features of a syphilitic ulceration. Furthermore, he had been given to understand that syphilis had been excluded by a proper course of anti-syphilitic treatment.

Dr. Klotz said that cases like the one reported by Dr. Bulkley were of common occurrence. In regard to the continuous immersion treatment referred to by Dr. Hyde, the speaker said that for years he had resorted to the same in his service in the German Hospital, and he considered it the most reliable treatment of progressive ulcerating processes, particularly the phagedenic ones.

Dr. POLLITZER, in closing, said that the suggestion that the case was one of syphilitic ulceration was a little too obvious, and that the histological features of the case alone excluded both syphilis and tuberculosis. Furthermore, he begged to refer again to the lesion on the forehead which there was every reason to believe had been transferred there by the patient's finger from the lesion in the pubic region, and which had healed after treatment by local applications only. None of the lesions, he must repeat, began as syphilitic ulcerations, by which the speaker said he understood broken-down gummata, but as small, flaccid blisters, filled with pus. These three facts, the vesicular beginning, the obvious transference to another part of the body, and the cure by local applications, were sufficient to exclude syphilis. Dr. Pollitzer said it was deemed advisable to resort to surgical measures in this case because while the patient was in the hospital, with the entire ulcerated region covered with a wet antiseptic dressing, which to a certain degree corresponded to the continuous bath, to which some of the speakers had referred, he developed new blisters at a distance of half an inch or more from the border of the nearest ulcers, and it appeared as though these new foci of disease were the result of infection through the lymphatics of the skin. Under those circumstances, it was considered advisable to treat the case radically, and remove the entire infected area at once.

INTRAMUSCULAR INJECTIONS IN THE TREATMENT OF SYPHILIS AND THE USE OF THE SOZO- IODOLATE OF MERCURY.¹

By ALEXANDER GARCEAU, M.D., San Francisco

Dermatologist to the Emanuel Sisterhood Polyclinic, the Telegraph Hill Polyclinic, and Dermatologist and Syphilologist to the San Francisco Maternity.

INTRAMUSCULAR injection of mercury is, in my opinion, the ideal treatment for syphilis. Everywhere to-day on the Continent, in England, and in America, the hypodermic injection has been converted into the intramuscular or intravenous use, and the clinical demonstration has shown its efficiency and given it a place well merited in individual cases. Its advantages are numerous, and, properly used, it is the æsthetic and theoretical way of treating this dreaded disease.

In Prince A. Morrow's work on Syphilology, edition of 1895, there is an article by Dr. J. A. Williams White on the treatment of syphilis. In this treatise, under the chapter designated "The Method of Administering Mercury," Dr. White devotes much space to the then so-called hypodermic injections, calling attention to formulæ, technique, etc. He then sets forth to criticize, in no very complimentary terms, the arguments of those who had at that time favored this method. He says: "The superiority of this method of treatment to all others has been most extravagantly and persistently set forth by its advocates during the last ten years." He proceeds to refute this extravagant and persistent advocacy by the written testimony of such eminent dermatologists and syphilologists as Kaposi, Neumann, Kreis, Besnier, Fournier, Brocq, Mauriac, Hutchinson, Taylor, Bangs, Belfield, McBurney, Chismore, Fordyce, and Keyes, all of whom stated either that hypodermic injections in the treatment of syphilis were productive of danger, or that they considered other methods superior.

Many of these authorities had never used this treatment at all, but had based their assertions on the reports of numerous cases. In view of this consideration, the value of their testimony is questionable.

¹ A paper read by invitation before the Pierce County Medical Society, at Tacoma, Wash.

It is thirty years since Lewin first advocated the hypodermatic use in syphilis, and during this time there has been much diversity of opinion regarding it, and reverses and successes have marked its testing; but recently experience with improved mercurial preparations and technique has turned the balance in its favor and done much to destroy the prejudice and adverse opinion of the medical world.

The value of mercury in the treatment of syphilis is now generally recognized. There are different views as to the best method of administering it, whether by inunction, by fumigation, by mouth, or by the various injections, but the large majority of the profession believe in its efficacy as the only remedial agent now known in the treatment of the disease. Gower says: "The diseases of which we know the least pathology are the diseases which we treat successfully." Syphilis is no exception to the rule, and we still treat it, and, from present indications, will continue to treat it, under the empiricism of mercury.

Whether the early classification of the disease into primary, secondary, and tertiary stages is correct or not, is not the question of this paper, but, admitting this from the French conception, or adding to this any other classification you may conceive, I believe, with the elder Fournier, that mercury is indicated at all stages of the disease.

Basing our own personal experiences upon the teachings of the best syphilologists of the world, and agreeing upon the sequelæ as the first indication for a conclusive diagnosis, and upon the cutaneous lesions, nerve lesions, and frequent obscure trophoneuroses which come on most insidiously as the late and varied manifestations of the disease, we are constantly on the *qui vive* for some method of treatment which will give us prompt results and keep the patient within reach of our skill and care during the practically adopted time of a possible cure.

To immediately place any patient upon internal medical treatment of mercury, irritating or non-irritating as the salt may be, is sure to produce gastro-intestinal derangements and other disagreeable conditions.

The use of inunctions has its advocates, and has always had them. Inunctions are safe if carefully watched and given carefully to individual cases. There have been many accidents reported of them of over-mercurialization, and above all they are dirty and give no end of inconvenience in their management to the patient by producing dermatitis and other cutaneous lesions.

The Zittman treatment of tertiary syphilis has come into prominence of late, the principle of which consists in eliminating the poison from the system by sweating and purgation, the keeping of a patient fourteen days at a temperature of 80° F., the medication by mouth of mercury, iodides, and decoctions of senna, etc., with an adapted diet. It has recently been given prominence by Dr. Alfred Cooper and others, who claim for it great efficacy, not only in syphilis and parasyphilitic affections, but in rheumatism, gout, and some skin diseases.

In a recent article, (*Annali dell'Istituto Maragliano per lo studio e la cura della Tuberculosis*, October, 1904), A. Risso A. Cipollina gives us results of experiments in the treatment of syphilis in the secondary and tertiary stages, who had never had any mercurial treatment, by the use of a serum of syphilitic cases in the secondary, or so-called contagious, stage. (Page 911, *Medical Record*, June 10, 1905).

This, of course, is purely experimental, but who knows but that the serum therapy of syphilis, which appears ideal, may not be the next evolution in our syphilography?

However, at the present writing, in Paris at the St. Louis, Broca, Pascal, St. Lazare, and other large hospitals where so many syphilis are treated, and where such eminent syphilologists abide, there is very little else used in the treatment of syphilis than the intramuscular or intravenous injection of mercury.

My own personal observations of fourteen months' investigation and research in France gave me ample reason to say that all former prejudices there against hypodermatic injections have been completely obliterated.

Sabouraud, *Dermatologie Topographique*, 1905, p. 726, says: "The most rational and scientific treatment of syphilis is by mercurial injections (Scarenzio). They are given on fixed dates, and a definite quantity of mercury is introduced into the economy without producing any useless fatigue upon the intestinal tract." He prefers the soluble to the insoluble salts.

Professor Gaucher, of Paris, in his monograph, *Traitement de la Syphilis*, 1905, p. 8-9, places particular stress on the use of soluble injections in the treatment of syphilis. He considers the use of insoluble injections a pharmaceutical heresy, and only to be used under practical necessity and extra-scientific reasons.

The following extracts from letters were received in answer to my query from personal friends and former teachers in the study of this subject:

From Dr. E. Graham Little, London.

"My own practice, about which you inquire, is to use the soluble salts. I find the succinimide very satisfactory. I give this twice a week in one-fourth-grain doses, injected into the buttock. My colleague at St. Mary's, Dr. Ernest Lane, surgeon to the work hospital, is now using injections at that hospital; he prefers the insoluble salts. His method of injection is to plunge the needle vertically into the tissue at a point midway between the anterior superior spine of the ileum and the top of the internatal fold.

"I have had some obstinate cases in which I have used the soluble salts injection daily for a fortnight or longer with admirable results; but this is possible only where the patient is constantly under supervision. I have never had any accident whatever with this treatment, and feel sure it is the best for syphilis."

From Dr. George Pernet, London.

"I certainly consider intramuscular injections of the greatest value. In severe cases, where eye, nervous system, or other viscus is in danger, that method should be resorted to without hesitation. The soluble salts are the safest, but if they do not answer I would inject calomel where all depended on rapidity of action."

From Prof. Lassar, Berlin.

"I have not published anything recently concerning injection methods. In the *Deutsche Med. Wochenschrift*, 1887, appeared an article on this theme, which I read through, and which opinion I can still thoroughly endorse. From this article please take my views. In general I desire to endorse the use of a one-half per cent. solution of sublimate three times weekly. It serves the purpose of lessening the symptoms and without working harmfully on the patient. Absolute asepsis is a condition of this method. We have at present no more effective and speedier remedy in its results than the injection method."

From Dr. Max Joseph, Berlin.

"In answer to your letter of July 25th, wherein you ask me my opinion regarding mercurial injections, I desire to inform you that the greater my experience in this realm becomes the more I am convinced that the inunctions are much more efficacious than the injections. It appears impossible to get a unanimity of opinion on this subject, since up to now we have no statistics bearing upon the results of the treatment of syphilis with different mercurial preparations. The old inunction method seems to have been pushed aside for the time by the injection therapy. Still, every now and then the injection therapy has shown so many disadvantages that the majority of physicians have again turned to inunctions. The thought was alluring that instead of giving patients

uncertain doses of mercury by inunctions, to give accurately figured-out amounts. Still, experience teaches us to judge concerning this latter fact more skeptically. Since insoluble mercurial salts can be injected in the form of an emulsion, so the dose is only an apparently exact one and considerable mercury always remains behind in the syringe. Still, omitting this objection, we can often enough observe that an inflammatory infiltration forms at the point of injection which contains a portion of mercury which has remained behind. I have been able personally to demonstrate that after many years a portion of the mercury remains at the place where the injection was made. Numerous clinical experiences have convinced me that the injection method was to be placed second to the inunction. I believe I could say with authority, based upon numerous observations, that the more energetically the inunction method was carried out the more favorable the prognosis of lues will be; for after effects the injection treatment cannot be compared with the inunctions.

"Instead of giving you numerous examples, I will describe one case which I saw for the last time June 26, 1905. At present he has an ophthalmoplegia, external and internal, and the prognosis is very bad. This patient was injected ten years ago, and during the first three years was given three injection courses yearly. After five years he came to me, because he saw double, and I found the paralysis of the nerve abducens, which did not improve in spite of vigorous inunctions and K. I. internally. Such bad results I have observed more frequently after injections than after inunctions. Therefore, I advise the general practitioner to remain with the inunction method and not be influenced by numerous opinions which are not based on safe observation."

From Dr. G. F. Lydston, Chicago.

"For speedy effect in emergencies, the hypodermatic method of treating syphilis is the treatment *par excellence*. In nerve and brain syphilis it is invaluable. It will often act where other methods are inefficacious. For the routine treatment I prefer to combine mild doses of mercury hypodermatically, with the usual internal and inunction methods. The succinate of mercury used intramuscularly in the gluteal region is my favorite preparation and method."

From Dr. H. G. Klotz, New York.

"As I wrote a paper on this question only a year ago, I have really nothing to add to what I stated then, and I therefore send you by the same mail a reprint of the paper as published in the *Medical News*, also a reprint of an older paper, published in 1890, which supplements the more recent paper in some points, particularly in regard to the technique. I can only repeat that I consider the insoluble injections one of, if not the most powerful method, of administering mercury to syphilitics. At the same time a method to which patients can submit with much less

inconvenience and interference with their business and social relations than to others, for instance inunctions. The injections are, as a rule, much quicker than other methods and are therefore particularly indicated where some organ is in imminent danger (*iritis*); their effectiveness in the so-called tertiary symptoms I cannot sufficiently emphasize; they are much more reliable than iodides, which I firmly believe are, in many cases, not a sufficient test to show the syphilitic nature of doubtful lesions."

From Dr. Charles Dake, Hot Springs, Ark.

"As you know, I have practiced medicine in Hot Springs for twenty-two years, during which time my practice has been very largely confined to the treatment of syphilis in all its stages. I have long since been disgusted with inunctions of mercury and often find its internal administrations undesirable and unsatisfactory. Hence, have resorted to hypodermatic treatments, using the bichlorides in varying doses, but have had, notwithstanding the most extreme care, frequent abscesses result. I am greatly pleased with your paper regarding the sozoiodolate of mercury, prepared according to your formula, and shall commence its use at once."

From Dr. V. G. Vecki, San Francisco.

"For the last ten years I have used almost exclusively the intramuscular injections in the treatment of all the stages of syphilis. There are various reasons why I prefer this kind of treatment to any other. I have used sublimate and calomel, and only recently have tried this sozoiodolate of mercury. It would be too early to form an opinion, but can tell you that in two very stubborn cases which I have under treatment at present, the sozoiodolate seems to do better than the other mercurial preparation. I shall continue my experiments with your modification of the sozoiodolate, and shall be glad to report to you further results."

From Dr. John A. Fordyce, New York.

"In a general way, I might say that, in my opinion, the benefit of mercurial injections in syphilis has been greatly over-estimated. In certain selected cases, and for special reasons, mercurial injections are a decided adjuvant to our methods for treating syphilis. As a routine method of treatment, however, I do not believe it will stand the test of time."

From Dr. Krotoszyner, San Francisco.

"I still hold to the old inunction treatment as one of the most important modes of removing the secondary lesions. Ordinarily, in the average case of secondary syphilis, of not too violent a type, my results are excellent under the influence of mercurial inunctions. Occasionally, for external reasons, for instance in married men who don't wish to expose themselves to the suspicion of any treatment, I replace the inunc-

tions by injections of soluble mercurial salts, preferably sublimate. Of this I administer one gram of a one per cent., or every other day the same amount of a two per cent. solution. In more tenacious cases, especially in the late secondary stages, I look upon the injections of sublimate as the method of choice as giving good results in cases where inunctions seem to fail. I also give sublimate injections in those acute cases of secondary syphilis where quick action is necessary in order to prevent disaster (spinal or cerebral lues). I cannot recommend too earnestly the application of this method for those cases, especially if the mercury is injected intravenously. As a rule I do not give the iodides simultaneously with mercury, but generally put my patients on iodides as soon as I have stopped mercury. I have never seen an abscess or any other bad result from sublimate injections, outside of the fact that some patients complain of pain incidental to the injection. As a rule, patients quickly get used to this method of treatment and prefer it to the less cleanly inunctions. In former years I often used insoluble salts, preferably calomel or salicylate of mercury, but have seen occasionally very severe stomatitis caused by the cumulative effect of mercurial deposits in the system. Since gaining a wider experience with sublimate injections I have abandoned the insoluble salts."

From Dr. George K. Torney, Lt. Col., Dep. Surg. Gen. U. S. Army.

"After an experience of thirty-four years as a military surgeon in the management of cases of this disease that came under my observation during that period, I am convinced that in the army the intramuscular injection of mercury, combined with iodine, possesses so many advantages over the methods of administration by the mouth and by inunction that it should be universally adopted in the service, as it enables the surgeon to keep the patient under control as to dosage, since by its use he is freed from dependence upon the whims of the individual, the neglect of the attendants, or the extreme variability of action when inunctions are applied. As the technique of intramuscular injection is very simple, it presents no difficulties to the careful clinician in the details of its application. In the venereal ward of this hospital my assistant, Captain H. H. Rutherford, Assistant Surgeon United States Army, is now using the soluble salt, sozoiodolate of mercury containing iodine in solution, with the best results and without damage or discomfort to the patients, and I shall recommend to the Surgeon General, United States Army, that this salt in solution, in sterilized tube, be issued to the post hospitals of the army, if the cost price does not preclude its purchase in large quantities, as its administration is almost painless and apparently not attended by danger to the individual."

From Henry H. Rutherford, M.D., Capt. Med. Dep. U. S. A.

"My experience in the treatment of syphilis by intramuscular injection of mercury salts has been highly favorable. My routine method in a case of syphilis with active manifestations is as follows:

"(1) Inject moderate doses of a soluble form of mercury into the glutei at short intervals, daily, up to the patient's limit of tolerance, or, as we say, until the patient is saturated.

"(2) This condition of saturation I then aim to maintain until all active manifestations have subsided. I do this by close attention to glandular activity and the gums, and graduation of dosage.

"(3) I now assume that the disease is under control and begin a very gradual reduction of the quantity of mercury exhibited, keeping a close lookout for evidence of recurrence of manifestations and giving special attention to hygienic measures.

"(4) Having reduced the drug to a small quantity, say two small doses per week, I adopt one of two courses: (a) the periodic administration of an insoluble form of Hg, or, (b) I discover and prescribe for each patient a form of the remedy that can be taken internally, or in lieu of this I prescribe intervals for taking inunctions.

"This, as stated, is the routine theoretically. As a matter of fact, there are many variations dependent upon the individualities of patients. The clinical material in this hospital is made up largely of the more vicious cases of secondary and tertiary syphilitics, a goodly number of whom come from the tropics, and though, as a rule, the subjects are young men, there are many of them who present the typical appearance of syphilitic cachexia. Others come in with all manner of complications and intercurrent diseases, nervous, gastro-intestinal diseases (dysentery), and chronic middle-ear and eye diseases. Hence the varieties of administration of treatment.

"The drugs at present used for injection are corrosive sublimate in aqueous solution; sozoiodolate of mercury in aqueous solution supersaturated with iodine; hermophenol in liquid petrolatum; metallic mercury cream; and biniodide of mercury in olive oil. Of these drugs there is none of which I hold a higher opinion than of the sozoiodolate of mercury. With this salt I have gotten excellent results in every particular sense.

"Following is an extract from a special report upon the use of sozoiodolate of mercury in the treatment of syphilis, written for the commanding officer of this hospital after the first month of its use:

"From August 27th to September 30th there were twenty cases on the treatment. Of these patients, four had no mercury previously; five had had intramuscular injection of corrosive sublimate, and they and the others had had at various times inunctions and protoiodide, mercury, and chalk and K. I. internally. With but four exceptions the cases have

showed only secondary manifestations. None had failed to react to mercury and make some degree of favorable progress.'

"The points most concerned in the progress of cases in general, under the old treatments, as given above, were: lack of uniformity in quantity of mercury administered, *i. e.*, certain cases under inunction treatment were slow in absorbing enough of the drug to affect the onward course of their disease, whilst others absorbed with such rapidity that severe mercurialism was promptly produced; in the case of internal administration, gastro-intestinal disturbances were of frequent occurrence, and a large percentage of the cases in which corrosive sublimate solution was used for intramuscular injection developed nodules and much soreness at the point of the injections.

"From one cause or another the patients were slow in coming under proper control, and with two exceptions they all showed more or less stability.

"The treatment by intramuscular injection by sozoiodolate of mercury has obviated all of the ill effects and conditions. There has been but slight inconvenience to the patient from pain, etc.; no abscess has been threatened; the effect has, with but one exception, been prompt and uniform; there has been no ptylism, and, particularly, the tonic effect has been excellent, the general condition of every patient having improved markedly. The average gain in weight per week amounted to three pounds."

(To be concluded)

ERRATUM.

In the April issue, article by Dr. James C. White, Meralgia Pares-thetica, the twenty-fifth line was lost out in paging. The entire paragraph should read as follows:

On inspection it is apparent that the area complained of corresponds strictly to the distribution of the cutaneous filaments of the external cutaneous femoral nerve. The skin presents to the eye no marked differences from the corresponding region of the left thigh, etc.

REPORT OF TWO CASES OF LARVA MIGRANS, WITH SPECIAL REFERENCE TO THE TREATMENT.

By M. B. HUTCHINS, M.D., Atlanta, Ga.

CASES of this disease are no longer curiosities in dermatological literature, but the actual observation of the larva is most rare and, as in my cases, not attained. The treatment has looked easy but proven as difficult as the larva is elusive.

My first case was that of a boy of six years, the trouble probably originating in Florida. The point of entry was in the middle of the ulnar side of the left palm. Following a wavy course and progressing perhaps an inch a day, the burrow, like a miniature of that of a garden mole, coursed towards the middle of the palm, then to the ulnar side of the palmar surface of the ring finger up to about the middle over the second phalanx, then looping and returning to the palm along the radial side of the palmar surface of the finger. When examined the larva had reached within an inch of the carpus. A drop or two of cocaine solution was injected behind and to the probable site of the organism, followed by a drop or two of chloroform. The next day there had been nearly an inch of progress, curving to the ulnar side. The treatment was repeated and was effective, no inflammatory reaction following. The idea of chloroform was indirectly suggested by knowledge of its use by entomologists.

The second case, a farmer, cutting wood in North Georgia, scratched a red-bug focus in left leg. He developed a number of the burrows, arcs, loops and gyrations. His leg was eczematized by strong treatment, showing also pus infection, and only one burrow was seen at the time of the examination—an arc. The chloroform injected and syringe used may have been contaminated and the one injection also failed to reach the right point. The eczematous leg rapidly recovered under equal parts of ammoniated mercury and benzoinated oxide of zinc ointment.

The site of the injection necrosed, and the larvæ spread in every direction. The patient was well when seen two months later. The last of burrows and larvæ were destroyed by repeated applications of tincture of iodine, which produced some inflammatory reaction as well as epithelial denudation. This man lost confidence in me at the beginning, because he had correctly diagnosed his case and I disputed

it before making an examination, and the faulty chloroform injection destroyed his interest in my treatment. The salve used may have aided the cure.

With the hypodermic needle placed a short distance behind the larva in the burrow and pushed to the estimated seat of the parasite, the cocaine injected (if needed), then the chloroform, we have apparently the ideal treatment of this condition.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

339th Regular Meeting, February 27, 1906.

Dr. G. H. Fox, President.

Bromide Eruption in a Child. Presented by Dr. LOTTA W. MYERS.

The patient, an Italian, female, aged six months, was brought to the dispensary on November 4, to be treated for a complete paralysis of the left side. Potassium bromide in 3-grain doses was given every two hours. Four days later the eruption appeared and the drug was discontinued. One week later, when the patient was referred to me, the lesions were upon the legs, face, and scalp, and a few small ones were on the thighs and left forearm. The lesions varied from small, tense vesicles to large, sharply defined, prominently raised surfaces on which were minute pustular points. For forty-five days—until December 3—these lesions increased in number and size and those upon the legs became confluent. During the next seven days no new lesions appeared and the old ones improved rapidly. Then for twelve days, from December 30 to January 11, there was a severe outbreak of fresh lesions. These were not numerous, small, varying from minute vesicles to lesions one-half inch in diameter, and were upon the buttocks and thighs with a few scattered over the face, legs, and lumbar region, and one on the right forearm. Again for seven days no new lesions appeared and the old ones improved. A third outbreak followed and lasted twelve days from January 18 to 30th. This was more severe than the first and attacked all parts of the body except the chest, shoulders and abdomen. The lesions were typical and discrete at first, but rapidly became confluent. Again during five days, no new lesions appeared. A fourth outbreak lasting eight days, from February 3 to 11, appeared on chest, shoulders and abdomen with a few on the arms and thighs. These were very numerous, but only about one-half inch in diameter and many of these did not run a typical course. During the following fourteen days, no new lesions appeared, but on February 24 new lesions were found on the head and legs.

Dr. KLOTZ agreed with the diagnosis. He thought the duration was remarkably long.

Dr. ALLEN said that he had seen the case in the earlier stages of the eruption. The appearance of the lesions at that time was almost the same as those shown in the illustrations accompanying an article by Dr. Myers in the *JOURNAL OF CUTANEOUS DISEASES* for May, 1904. He considered this case peculiar in the duration and in the configuration of the lesions. In the adult bromide eruptions might last for a long time after the drug had been stopped, but he had never seen a case in a child which had lasted so long as the case shown.

Dr. BULKLEY agreed with the diagnosis, in fact, could not think of any other diagnosis to be made.

Dr. LUSTGARTEN suggested an examination of the urine to determine if bromide was still being excreted. It was well known that bromide might be stored in the system and as bromide in the urine was never a normal constituent its presence could throw much light upon the case. He would not make a positive diagnosis.

Dr. FORDYCE drew attention to the remarkable resemblance of bromide eruptions to syphilitic eruptions; notably the serpigenous forms. The history of a hemiplegia lent some weight to this view aside from the resemblance of some of the lesions to syphilis.

Dr. Fox said that he recalled a case where he had photographed lesions as due to syphilis, which afterwards when he had compared it with the lesions in a bromide case of Dr. Jackson's, he felt that his case had also been due to bromide. The small doses, the repeated outbreaks, made this case of Dr. Myers's quite unique.

Epithelioma Near the Outer Canthus, Treated With Allen's Paste. Presented by Dr. ALLEN.

The patient was a man presenting an epithelioma at the outer angle of the left eye. Patient called it lupus because it "looped" over the eye. Dr. Allen had applied a paste of one part of arsenic to two parts of orthoform. A mass had fallen away leaving the clean surface shown. Paste was absolutely painless, and had not injured the uninvolved conjunctiva.

Dr. ALLEN thought that in these cases the progress of the disease was stayed by a clearing out of the orbital contents. In a similar case in which this had been done, the man's life had probably been prolonged ten or twelve years. He advised treating the small points of relapse with the high frequency spark. He referred to a case of epithelioma of the forehead in which a graft had been taken from the thigh. The epitheliomatous process beginning at the margin of the graft had invaded the newly grafted skin rather than the original skin of the face, until about one-eighth of its area was involved. It was then cured with the high frequency spark.

Raynaud's Disease in a Syphilitic. Presented by Dr. LUSTGARTEN.

The case was a man giving a suspicious history of having had syphilis. Two years ago the present trouble began as asphyxia of finger tips, which later on showed signs of gangrene. One year ago a surgeon removed the first joint of right middle finger. The radial arteries can scarcely be felt. In the right hand, collateral circulation has been established in a dorsal artery. Under antiluetic treatment the pains have gone, but there is still great sensitiveness to cold temperatures. There are

present a few leukoplasic patches in the mouth to support the diagnosis of a specific basis to the disease.

Dr. KLOTZ agreed with the diagnosis. The case presented resembled very much the three cases which he had mentioned at the last meeting. Two of these cases were entirely cured and remained well to-day, the third had died later, all three had a clear history of syphilis. His cases had all shown the coldness and blueness of fingers with superficial necrosis of the tips. Hutchinson had first called attention to the relation of syphilis to certain cases of Raynaud's disease (*Med. Times and Gazette*, I. 347). in a paper entitled: "A Case of Syphilis in which Several Fingers of Both Hands Became Cold and Livid, Suspected Arteritis." Dr. Klotz had published his first case under the same title in August, 1889 (*Jour. Am. Med. Sc.*). Later in his *Archives of Surgery*, Hutchinson had again referred to his own as well as to Dr. Klotz's article.

Dr. ALLEN alluded to the excruciating pain in these cases. He favored the use of the iodides also. Mercurials alone did not give relief to the pain.

Dr. BRONSON referred to the case of symmetric gangrene of the lower extremities which he had shown two or three years ago at Washington. His case had been apparently cured by excision. The first operation had been followed by a recurrence. The second operation had been more thoroughly done and there had not been a recurrence.

Dr. FORDYCE said that while the improvement under mercury and iodide of potash were suggestive of syphilis, nevertheless it was not conclusive. Arterial sclerosis from other causes might be improved by mercury and the iodides.

Dr. FOX said that while antisypilitics did work wonders, yet antisypilitics helped lupus, leprosy and psoriasis cases also.

Dr. KLOTZ agreed with Dr. FOX in that regard and alluded to his case of rhinoscleroma which repeatedly had been much improved by mercurials.

Dr. LUSTGARTEN did not wish to be misunderstood as saying that all cases of Raynaud's disease were due to a syphilitic cause. Ordinarily the picture presented did not suggest syphilis. There were numerous toxic causes, such as aniline, ergotine, lead, etc., which might cause symmetrical asphyxia and gangrene. In this case it was impossible to find other causes. It was due to an endarteritis of slow development. The absence of radial pulsation showed an involvement of these vessels. It is quite possible that the spontaneous obliterative endarteritis of former times had not been as carefully studied from a pathological basis.

Lupus Erythematosus Associated With an Epithelioma Developed Upon a Mole of the Upper Lip. Presented by Dr. ALLEN.

The patient was a woman with symmetrical butterfly lesions on the cheeks, face and outlying areas, typical of lupus erythematosus, of twenty-three years duration. An irritated mole on the left side of the upper lip had recently taken on epitheliomatous degeneration and extended peripherally. It was a feature of this case that the epithelioma had taken on the characteristics of the lupus. He had been treating the epithelioma as well as the lupus with the high frequency current with marked benefit.

Dr. FORDYCE had seen an epithelioma develop upon a lupus erythematosus base. This apparently was not the case here.

Dr. BULKLEY had frequently seen epithelioma develop upon a lupus erythematosus base.

A Case of Peculiar Symmetrical Atrophy of the Skin. Presented by Dr. WINFIELD.

Female, aged thirty-five years, a Russian Polish Hebrew; there was an atrophy of the skin of the left hand, extending up to the wrist, and the skin covering the right lower extremity from the middle third of the thigh to the end of the toes, more marked over the knee and foot. There was no history of its beginning, except that it was first noticed over the knee and foot after a miscarriage, followed by sepsis.

Dr. KLOTZ had shown a similar case at the last meeting of the American Dermatological Association, a case which had also been shown before this Society. In his case the veins had not been so visible as in the case shown. These cases might properly be classified under the designation of acrodermatitis of Herxheimer.

Case of Acanthosis Nigricans. Presented by Dr. ALLEN.

The patient was a young girl of eleven years. Eighteen months ago she had scarlet fever, and six months later the skin became dark with thickened folds in axillæ. She has never been strong since she was operated upon for appendicitis five years ago. Six other children are well with good skins. Some lymph nodes are palpable, but no evidence is found of disease of internal organs. The skin of face, neck and trunk, especially the lateral surfaces and axillary regions, are harsh, thickened and blackish.

Dr. FORDYCE said that it was a remarkable case. No case like it had been shown before the Society. He thought that in Acanthosis nigricans the epidermic thickening was greater.

Dr. WHITEHOUSE agreed with Dr. Allen's diagnosis. The case corresponded in clinical features to the description of Acanthosis nigricans.

Dr. KLOTZ inquired as to blood and urine examinations.

Dr. ALLEN said there were no signs of enlargement of internal organs. He would endeavor to have careful blood and urine examinations made as well as histological examination of the affected skin. The skin did not seem to perspire normally.

Dr. JOHNSTON said the case impressed him as being due to a toxic change diffused through the skin. The cases of Acanthosis nigricans described by Pollitzer and Janowsky, presented warty growths, with breaks in the skin along the line cleavage and deep fissures. A great majority of the cases so far reported had been associated with malignant abdominal disease, chiefly bladder, in which the growth sometimes involves the semilunar ganglion. This case may possibly be due to some excess or diminution of an internal secretion following parenchymatous degeneration in glandular structures from scarlatina. He would suggest a very careful examination of the entire amount of urine voided in twenty-four hours, not only to search for the usual constituents but to determine the nitrogen partition percentages; those of sulphur, phosphorous and pigment.

Dermatitis Papillaris Capillitii, A Case of. Presented by Dr. MEWBORN.

The patient is a native of Ireland, twenty-eight years old, and a motorman. Denies venereal history. No tubercular family history.

Present trouble began as pimples and pustules on the back of neck, five years ago. At the margin of the hairy scalp at the nape of the neck is a triangular area about two and a half inches in diameter, with roughly elevated keloidal scar tissue surrounded by discrete pin-head to pea-sized nodules, some of which are pierced by one to several hairs. A microscopical examination shows no sign of fungi. There are no subjective symptoms.

Case for Diagnosis. Presented by Dr. ALLEN.

The forehead of a young woman has been occupied since November, 1905, with groups of deep-seated follicular pustules, the pus being of green hue like that of furuncle. The areas are tender and painful and were but slightly influenced by treatment, until she came under X-ray treatment. Preceding the outbreak, there had been, she says, a tumor excised from the forehead—leaving a scar. There is baggy infiltration in the areas involved and superficial pitted scars follow healing of the individual lesions.

Dr. KLOTZ thought the process might be a local tuberculosis, inoculated on what was originally a common pimple. There was some doubt about the nature of the abscess that was excised.

Dr. WHITEHOUSE thought it was a local pyodermitis due to ordinary pus organisms.

Dr. JACKSON agreed with Dr. Whitehouse.

Dr. FORDYCE thought it a streptococcic infection.

Case of Lepra, Showing Burn From Hot Bath. (Anaesthetic Form).

Presented by Dr. ALLEN.

The patient was a man, native of Honduras, aged thirty-three years. Improvement had taken place under X-ray treatment. The leprosy is of tuberculo-anæsthetic form. Recently the patient took a hot bath and scrubbed himself with a brush so that the anæsthetic areas showed a burn before he was aware of injury. The X-ray had seemed to cause the burn to heal promptly as well as to reduce the swelling of the face.

Dr. KLOTZ alluded to a recent paper by Wilkinson in the *Journal* of the American Medical Association, describing the use of X-ray in the treatment of leprosy in the Philippines. His results were very favorable.

Dr. FOX said that the X-ray did not always cause the lepra nodules to disappear, as he had seen a case in which the nodules had enlarged and the case seemed aggravated.

Dr. ALLEN presented some interesting photographs of a large tumor of the hip and buttock; an enchondroma with sarcomatous degeneration.

A. D. MEWBORN, *Secretary.*

BOSTON DERMATOLOGICAL SOCIETY.

February Meeting.

Dr. C. M. SMITH in the Chair.

A Case of Chronic Ulceration. Presented by Dr. C. J. WHITE.

The patient was a young unmarried woman. Her father, mother, and four brothers and sisters were living and well, and the patient had always enjoyed good health until three months ago, when the present ulceration developed. The disease began as a papule on the lower right leg, posteriorly. This lesion increased in size and finally ulcerated and similar papules appeared in the vicinity of the first one and underwent the same evolution.

At entrance to the Skin Ward of the Massachusetts General Hospital the following conditions were noted: Physical examination revealed nothing abnormal except abundant pediculosis of the scalp and the ulcers upon the lower leg.

Over the inner aspect of the tibia was seen an irregularly round ulcer two inches in diameter, with rather precipitate, somewhat hard edges surrounded by a blue-dusky red halo. Higher up and more anteriorly were six smaller, quite round, somewhat "punched-out" ulcers varying in diameter from one-quarter to three-quarters of an inch. The bases of all these ulcerations were sluggish and all were surrounded by a dusky-red halo. Posteriorly, over the upper part of the tendo-Achilles, were one or two similar ulcers and finally, scattered between these ulcers, which in no sense could be called grouped, were several bluish, slightly elevated, small nodules.

Opinion as to the nature of the process has been modified from time to time during the patient's six weeks' residence in the hospital. Syphilis debility and erythema induratum have been considered and the microscopical examination disclosed an abundant infiltration of cells into the whole depth of the corium. In places the cells assume a focal distribution, in one of which agglomerations there was a colloidal central change. In one deep area there was a small occluded vessel. The cells for the most part were lymphocytes but occasionally polynuclear leucocytes and plasma cells were found. From the microscopic examination, therefore, we were obliged to rule out syphilis and tuberculosis and considered the section to present a banal, granulation tissue.

Mercury, zinc, sulphur, nosophen, boracic acid, iodine, bovine iron and cod liver oil have been applied locally, while iodide of potassium, malt and cod liver oil and iron have been administered internally.

Under stimulating, tonic treatment and rest, the smaller ulcers, with one exception, healed. The large ulceration became more healthy for a time, but since then the granulations have become more sluggish and the periphery has lost tone, while a new ulcer has developed posteriorly.

Under these disappointing circumstances the case was presented to the Society for diagnosis, but principally for suggestions as to treatment.

Dr. HOWE considered the possibility of blastomycetic dermatitis, in view of the chronicity of the ulcerations, and their failure to heal under ordinary methods of treatment.

Dr. J. C. WHITE thought the lesions resulted from a low state of vitality. In them he saw nothing peculiar except their intractability.

Dr. BURNS said he had observed the case for several weeks in the service of Dr. C. J. White, and after watching the process day after day he had come to the opinion just expressed by Dr. J. C. White, viz.: that the ulcers were of simple origin occurring in a person of lowered vitality.

Dr. C. J. WHITE said that when the patient first came under his observation, there had been some question about the ulcerations being of syphilitic nature, but that the appearances of the lesions and their failure to respond to iodide of potassium had disinclined him to such a belief. He had come to look upon the process as indolent ulcerations of simple nature. The possibility of erythema induratum had also been considered; microscopic examination, however, showed only poorly nourished granulation tissue.

A Case of Alopecia. Presented by Dr. J. S. HOWE.

The patient, a young woman, otherwise in good health, had had an affection of the scalp about a year and a half, which had caused some permanent alopecia. Sparsely disseminated over the scalp were small follicular crusting papules of firm consistence which, on healing, seemed to leave the skin slightly atrophied. There was slight, but noticeable, general thinning of the hair.

Dr. J. C. WHITE thought the alopecia due to a chronic folliculitis.

Dr. C. J. WHITE wished to consider a chronic folliculitis and also the possibility of keratosis follicularis. The latter affection, however, he was inclined to exclude on account of the limitation of the process in this patient and the absence of the characteristic follicular plugs usually seen in keratosis follicularis. A chronic folliculitis causing destructive alopecia seemed to him the most probable diagnosis.

Dr. Howe said that from his short observation of the case, he was also inclined to consider the alopecia due to chronic folliculitis.

A Case of Lichenoid Syphilide in a Negro. Presented by Dr. ABNER POST.

The eruption on account of which the patient was shown, had been out five weeks. Abundantly distributed generally over the surface of the skin were firm lichenoid papules, distinctly black in hue, with a noticeable tendency to grouping and the formation of circles and segments of circles. The outbreak followed an initial lesion on the penis. The patient also showed general adenopathy and typical mucous patches on the buccal mucous membrane.

Dr. C. J. WHITE. An interesting case of lichenoid syphilide.

Dr. HOWE remarked upon the rather common symbiosis of seborrhœa and syphilis, which he noted was also present in this case.

Dr. POST, alluding to statements he had at times heard to the contrary, said he thought the diagnosis of syphilitic lesions in negroes as easy as in white races.

A Case of Psoriasis. Presented by Dr. F. S. BURNS.

A young man, twenty-three years old, has had a generalized scaling eruption of eight weeks' duration. The affection began, according to the patient's evidence, between the eyebrows and in a few days spread over the scalp, trunk and limbs. The patient's health has always been good except for occasional "sour stomach."

The scalp is thickly covered with yellowish white, rather oily scales, situated on a buff-red base. From the scalp the process spreads over the forehead, which is decidedly scaling and infiltrated, of a brownish-red hue and of parchment-like consistency. The trunk is abundantly covered with nummular scaling lesions of similar hue, occurring most numerous over the sternal and interseapular regions. The limbs also are the sites of many small nummular scaling lesions, occurring by preference on the extensor aspects, but without special predilection for the elbows and knees. All lesions are palpably oily.

Dr. Howe diagnosed the affection as psoriasis.

Dr. C. J. WHITE thought the case interesting on account of its resemblance to seborrhoeic dermatitis.

Dr. BURNS said he had presented the case as psoriasis of atypical distribution with a marked seborrhoeal element.

A Case of Seborrhoeic Dermatitis. Presented by Dr. J. S. HOWE.

A man, twenty-eight years of age, has had a generalized skin eruption attended with mild pruritus for one month. Sparsely distributed over the trunk and limbs are pea, to quarter of a dollar sized, light red slightly infiltrated, rounded and oval furfuraceous scaling lesions, quite sharply bounded without special localization. The scalp presents profuse dry seborrhoeal scaling. The face is uninvolved.

Dr. BURNS wished to consider seborrhoeic dermatitis and parapsoriasis; favoring the former affection for his diagnosis.

Dr. J. C. WHITE preferred to place the affection in the class of manifestations designated as parapsoriasis. The lesions seemed to him too sharp and defined to be a real seborrhoeic dermatitis. The lesions approached rather the characteristics of psoriasis.

Dr. HOWE thought the affection might with propriety be called seborrhoeic dermatitis.

A Case of Ringed Eruption. Presented by Dr. C. M. SMITH.

The skin disease for which the patient is presented, began on the wrists last December as small pruritic lesions, which in a few weeks spread to the arms and also appeared on the thighs. Where the lesions have developed they uniformly appear as annular figures, varying in size from one to three inches in diameter with slightly raised and scaling pale erythematous borders which do not seem to be formed by the coalescence of papules. Several figures on the upper arms are almost perfect circles; some on the thighs appear as segments of circles.

Syphilitic history is lacking. The patient's husband and children are in good health and unaffected with any skin disease. Two microscopic examinations of scrapings from the borders of lesions were made for fungi, but each time without result.

Dr. C. J. WHITE thought the large spore ringworm not improbable. Until further examination of the scales had been made he would be inclined, on clinical evidence alone, to think strongly of ringworm, for it had been his experience that that variety of the trichophyton frequently eluded search.

Dr. TOWLE agreed in general with the opinions expressed by Dr. C. J. White.

Dr. HOWE was inclined to consider ringworm most probable.

Dr. J. C. WHITE said that when all lesions were considered he would not seriously think of ringworm. Many of the ringed figures he thought were too large for that affection, and furthermore, he would have expected to see, with so much implication of the limbs, also evidence of disease on the trunk.

Dr. POST was unwilling to diagnosticate ringworm or to commit himself to any definite expression of opinion.

A Case of Acne Necrotica. Presented by Dr. C. J. WHITE.

Julia I., an Italian, thirty-five years of age, developed the present disease between nine and ten years ago. The disease still persists and appears as a triangular area over each temporal region in the scalp. The surface is thickly covered with acuminate, crust-topped papules interspersed with deep cicatrices. The hair in these affected regions is distinctly thinned. Subjectively, pain has been felt occasionally. Over the malar regions and the nose are numerous, small white, jagged scars due to an attack of smallpox twenty-five years ago while a child in Italy.

Dr. HOWE was inclined to doubt the purported duration of the process. The appearance seen, he thought, might be produced by a chronic follicular inflammation affecting that region.

Dr. J. C. WHITE thought, with the history given, the process could be eczema or lupus erythematosus. A definite opinion was not expressed.

F. S. BURNS, *Secretary*.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Society was held Tuesday evening, February 20, 1906, in the Medico-Chirurgical Hospital, Seventeenth and Cherry Streets, at 8 o'clock, Dr. M. B. Hartzell, in the chair.

A Case of Striae Atrophicæ, in its very early stage was shown by Dr. C. N. Davis. The patient was a man, twenty-eight years of age, and a floor-walker by occupation, although previously he had been an engineer. The condition as observed by Dr. Davis had lasted but two weeks. The patient gave a history of having gained thirteen pounds in weight within the last two months. The streaks were situated over the lower abdomen and upper part of the thighs and were more or less horizontal. They were dark red or violaceous in color, suggesting somewhat the tint of morphea.

A Case of Tinea Circinata of Unusually Inflammatory Type was presented by Dr. M. B. Hartzell. The patient was a girl, fifteen years of age. The duration was two months. The lesion was situated on the back of the right hand, occupying almost its entire surface. When first seen, the lesion was in a highly inflammatory condition and ulceration was noted on its border. Under very mild treatment, the characteristics of tinea circinata became more manifest. At the present time, two concentric rings could be seen. The presence of the fungus was demonstrated by the microscope.

A Case of Lupus Erythematosus Improved by Exposure to the X-ray was brought to the attention of the Society by Dr. Hartzell. The patient was a young girl, and the face was the site of the disease. Certain patches had been treated by the X-ray with improvement, contrasting sharply with other patches that had not.

A Case of Epithelioma Treated by Caustics was exhibited by Dr. C. N. Davis. The patient was a woman, fifty-five years of age. The disease had occupied an area 1 1-2 by 2 inches on the right side of the forehead, but was now apparently entirely healed. The case was shown in order to demonstrate the result of the older method of treatment of first cauterizing with caustic potash; second, applying a 40 per cent. pyrogallol plaster; third, poulticing with flaxseed and boric acid for about twenty-four hours, after which healing is encouraged by the use of boric acid ointment. This same patient was also the subject of leg ulcers which had been particularly resistant to the prescribed modes of therapy. A marked improvement had been noted under the local application directly to the ulcers of a 33 per cent enzymol preparation. The adjacent eczema had been treated by the local application of Resorcin, gr. viiss, bismuth subgallate, 5ss, glycerin, mv, aquæ camphoræ, ʒi.

A Case of Granuloma was brought before the Society by Dr. Schamberg. The patient was a man, forty-two years of age, and a druggist by occupation. The duration of the condition was three and one-half months. The lesion was about the size of a twenty-five-cent piece and situated on the chin. There was no history of lues. When first seen by the exhibitor a month ago there was present an elevated infiltrated button-like plaque one inch in diameter. This was reddened, firm to the touch and had a distinctly elevated border. The patient said that the lesion began as a "blind boil." Many hairs could be extracted easily. Careful examination of the hairs was made on several occasions, but with negative result. Cultures of the hairs also failed to show the presence of any fungus. Microscopically the growth proved to be an acute granuloma with profuse round cell infiltration and a loose œdematous stroma. Giant

cells were present in some numbers deep in the corium. Here and there a few nests of epithelial cells appeared to be snared off. The general opinion was that the growth resembled deep ringworm infection, but the negative findings excluded such a diagnosis.

A Case of Syphilitic Onychia, affecting several fingers and one toe was also shown by Dr. Schamberg. The patient was an adult male and had had a generalized macular eruption eight months previously. The persistent character of the nail condition was especially marked. The case served to bring out considerable discussion as regards differential diagnosis of conditions affecting the nails, but no conclusions of practical importance were reached.

A Case of Mummification of the Skin was brought to the attention of the Society by Dr. Hartzell. The patient was a bedridden, elderly white man, who gave a somewhat untrustworthy history of having had the condition for about twelve weeks. The affection consisted of an extremely dry, hard, thickened, and deeply pigmented condition of the skin of both legs and feet. A large circular ulcer was also present on one leg.

A Case of Epitheliomatous and Possibly Syphilitic Ulcerations occurring on adjacent parts, was also shown by Dr. Hartzell. The epitheliomatous ulceration had been improved repeatedly by the X-ray, but had recurred. New ulcerations of a different type had appeared and had undergone involution to some extent under the administration of potassium iodide.

A Case of Epidermolysis Bullosa was presented by Dr. Schamberg. The patient was a boy, ten years of age. The condition had existed since birth. Improvement had taken place under the use of the X-ray. The patient had had thirty or more exposures to the hands and legs with a lessening of the tendency to form blebs.

A Case of Dermatitis Factitia was exhibited by Dr. Davis. The patient was a colored woman, thirty-eight years of age, and had been previously shown before the Society, for this condition of marked linear fissures of the dorsal surface of the left hand.

A Case of a Papular Eruption Suggesting Lichen Planus was shown by Dr. Schamberg. The patient, a woman, forty-two years of age, was the mother of the boy affected with epidermolysis bullosa. The duration of the condition was four weeks. The affection was found to consist of a linear papular eruption on the dorsal surface of the arm extending from the upper third downward unto the hand. She was subject, at times, to numbness in the fingers and darting pains.

A Case of Syphilis With Multiple Chancers of the Penis was presented by Dr. F. C. Knowles. The patient was a white male adult, and gave a history of having had gonorrhœa and gonorrhœal bubo at a remote period. The duration of the present condition was about seven and one-half weeks. As near as could be ascertained, the incubation period was about one month. On the glans penis on the right side and extending back to the corona was a dime-sized indurated lesion. Two and a half inches from the aperture of the frenum on the right side of the shaft of the penis was another dime-sized indurated lesion. At the base of the shaft of the penis on the left side, there was a third dime-sized, raised, button-like indurated lesion. Two other similar, indurated lesions (making five in all) were present, situated on the anterior surface of the penis on a line one-half inch behind the corona glandis almost in the median line. Both of these lesions were situated upon a paraphimosis and probably were the cause of the same. Two of the lesions appeared within a few days of each other; the third followed in two weeks and the remaining two at a much later period. A characteristic papular syphilide was seen on the body; headache and adenopathy were likewise present.

A Case of Granuloma was shown by Dr. Schamberg. The condition was situated upon the back of the hand of a man aged forty-five, of four weeks' duration. The affection began as an eczematoid vesicular patch; subsequently becoming infiltrated and elevated. The diagnoses considered were deep ringworm infection, pyogenic granuloma and tuberculosis cutis. Cultures showed no fungus. The man was a butcher by trade, but gave no history of a wound. In view of the occupation, Dr. Schamberg considered the diagnosis of tuberculosis most plausible.

A Case of Sarcoma of the Inferior Maxilla situated at the angle of the jaw, was exhibited by Dr. Pfahler in order to demonstrate the beneficial effect of exposure to the X-ray. The patient was a boy, sixteen years of age. Several operations had been performed for its relief, but recurrence had occurred after each. A dermatitis had been produced over the area exposed to the X-ray and also on an area directly opposite on the other side of the face, supposed to be produced by the rays on their exit. Another case of sarcoma, previously shown, was presented by Dr. Pfahler, to illustrate the same feature, namely improvement under radio-therapy.

A Case of Sycosis Vulgaris was shown by Dr. Schamberg. The affection had persisted for a number of years and involved the mustache, beard, and eyelids. The patient was treated elsewhere with the X-rays and a pronounced dermatitis produced. Although no X-ray treatment has been given for three months, a most disfiguring redness of the entire irradiated area persists despite soothing treatment.

SAMUEL HORTON BROWN, M.D., *Reporter.*

REVIEW
of
DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

LEPROSY.

By HENRY G. ANTHONY, M.D., Chicago.

Report of a Case of Leprosy. ROCHET and BILLET. (*Ann. de Derm. et Syph.*, 1905, p. 422.)

The patient was forty years old. He presented a typical case of tubercular leprosy with leontiasis, contracted in the West Indies and beginning as a bulbous eruption of the knees.

The Cure of Leprosy. DYER. (*Medical News*, New York, July 29, 1905.)

The author believes that leprosy is curable in the same sense that syphilis and tuberculosis are curable. No patient has failed to respond to treatment. Where treatment is begun early and continued for a long time, complete recovery will occur in a certain number of cases. Strychnia and chaulmoogra oil are the remedies employed.

The Possible Mode of Communicating Leprosy. MAGLISTON. (*Jour. of Tropical Medicine*, 1905, July.)

The author noticed the almost universal presence of scabies in lepers and it occurred to him that the disease might be communicated by the itch mite. On investigation, he found 44 out of 77 patients examined had scabies at the time of admission to the hospital, and 11 more remembered having had the disease, and 22 could not recall having ever suffered from it.

Involvement of the Scalp in Leprosy. PERNET. (*Brit. Med. Jour.*, 1905, p. 1281.)

It is generally said that leprosy does not affect the scalp, but the author has observed two cases in which in association with leprosy lesions on other parts of the body, there was present alopecia, infiltration and anæsthesia in certain areas of the scalp.

The Subcutaneous Injection of Chaulmoogra Oil in the Treatment of Leprosy. TOURTOULIN. (*Monatsh. f. prakt. Derm.*, 1905, p. 88.)

The author employed this method which was introduced by Hallopeau in three cases. There was a decided improvement in each case, but no complete cure.

Pathology and Treatment of Leprosy. ROST. (*Brit. Med. Jour.*, 1905, p. 294.)

The author has discovered a way of growing the bacillus of tuberculosis and the bacillus of leprosy rapidly.

He removes all salts of chlorine from the nutrient media; this is a difficult task because of the wide distribution of the salts. Where the bacilli are grown on culture media from which the salts have been extracted and then even a minute quantity of the salt is added it immediately exerts an inhibitory action on the culture, showing that it really is the removal of the salts which favors the growth of the microorganisms.

A leprolin was produced from pure cultures of the lepra bacillus by following Koch's technique for the production of tuberculin.

Injections of leprolin produce both local and general reaction. The first noticeable effect on the disease is the return of sensation in anæsthetic areas. The pains in the limbs are relieved and gradually pigmentations disappear, nodules absorb and ulcers heal. The action is uncertain, some cases being more affected by this treatment than others. There are now about one hundred cases under treatment in Burmah.

Lepra Tuberosa. HYDE. (*Jour. Am. Med. Ass.*, 1906, vol. 45, p. 847.)

The patient was a native of Russia. He came to this country six years ago, and has since resided in one of our western States. He presented typical symptoms of tubercular leprosy, with an admixture of lesions commonly found in anæsthetic types of the disease.

The points of especial interest in the case were: The youth of the patient, and the fact that the disease had existed only three years, the marked improvement produced by chaulmoogra oil, the fact that the disease originated in Russia, and the large number of bacilli contained in the nasal secretion.

INFLAMMATION OF THE SKIN.

By HARVEY P. TOWLE, M.D., Boston.

Erythema Induratum. KRAUS (*Arch. f. Derm. u. Syph.*, 1905, lxxvi., p. 185.)

Kraus reports two cases of erythema induratum which serve him as a foundation for a critical study of the disease and its literature. Both

cases occurred in women. The first had had one attack six years ago, a second two years ago, while the present attack was of five weeks' duration when first seen. It was characterized by pea to hazel nut nodules on the lower legs, which were most numerous on the calves. A biopsy was not permitted. Three years later the patient died of pulmonary tuberculosis. The second case had had the disease for four years and presented numerous nodules, not only over the legs but also upon the arms, which varied in size from a pin's head to a kreuzer and which were most abundant over the flexor surfaces of the legs and the extensor surfaces of the arms. In summing up the histologic findings, Kraus states that the process is of an inflammatory nature and is characterized by its origin in the subcutaneous fat tissue and by its nearly complete limitation to that tissue. Inflammatory atrophy is present. In the diseased fat tissue were found cheesy areas, which suggested a tubercular process at first sight, but which close examination proved to be of inflammatory origin. Kraus states in this connection that inflammation of the fat tissue may give rise to changes which resemble those due to tuberculosis. But nowhere in this case did he find true tubercles, true necrosis or the true giant cells of tuberculosis nor any tubercle bacilli. Further, there was present in the vessels no pathological process which he could look upon as the starting point of the disease. The tuberculin test was negative, which was against the process being tubercular. In regard to the giant cells present, Kraus says that they were not found in the necrotic areas, but here and there in the neighboring freshly infiltrated tissue, and betrayed their inflammatory origin by forming groups in those regions in the fat tissue which had been atrophied by inflammation. He describes them as round or oval cells which usually occupied the site of a fat cell and contained a mass of nuclei. The peripheral nuclei stained the more deeply and nearly always showed an irregular arrangement with regard to the cell axis. Toward the center of the cell the nuclei stained less and less until there finally remained only a homogeneous, more or less reticular structure with small vacuoles.

The review of other cases which Kraus made in order to ascertain if the histological data sustained his diagnosis when compared with the findings of other observers, led him to the conclusion that there was but one constant fact in the whole literature, *i. e.*: that there was present in erythema induratum an inflammatory process in the subcutaneous fat tissue. As regards everything else, he found the reports to vary greatly. Several writers, he continues, spoke of tubercular-like changes, basing their opinions on the atrophy of the fat tissue. Kraus criticizes these opinions on the ground that, as he has shown in a previous article on inflammatory changes, there are various diseases of an inflammatory nature which may give rise to appearances which resemble tuberculosis very closely—for instance, gummata. He thinks, therefore, that they have mistaken the

inflammatory changes for tubercular. Still he has seen inflammatory fat atrophy in true tuberculosis. Nevertheless Kraus thinks that these changes have great significance in erythema induratum. He does not wish to deny the possibility of the disease being tubercular inasmuch as the positive reaction to tuberculin shows that there are cases which are essentially tubercular.

Kraus also considers the clinical picture as drawn by the various writers to be as indefinite as the histological, for the only undisputed clinical fact which he could find was that the disease arises in the deep layers of the skin and manifests itself in the form of nodules. He concludes therefore, that the disease picture is a composite of various processes which have in common an accompanying inflammatory atrophy of the fat tissue and for whose exact differentiation further research is needed.

Urticaria, Study of Gastric Contents in. HIRSHBERG. (*Am. Med.*, Sept. 2, 1905, p. 398.)

Hirshberg analyzed the gastric contents in seven cases of urticaria. Before giving the Ewald-Boas breakfast, the stomach was washed out. One hour after the test meal, the gastric contents were obtained, in some cases by expression, in other cases by aspiration. The analyses showed hyperacidity in the majority of the cases which was most marked in the chronic or persistent forms of urticaria. More than this cannot be claimed from this small series. Acting, however, upon the theory that hyperacidity really is a factor in urticaria, Hirshberg prescribes for his patients, milk or magnesia and a capsule containing one gram of sodium bicarbonate and three-tenths of a gram of sodium salicylate.

Seborrhœic Psoriasis. DARIER. (*Rev. gen. de Clin. et de Ther. Paris*, 1905, xix., p. 119.)

Darier presented a case in which a diagnosis of psoriasis was made because of the presence of two symptoms which he considers pathognomonic. The first symptom—*tache de bougie*—is the formation of a white spot or line on scratching lightly with the finger nail. The second symptom—*la rosée sanglante*—is the appearance of a drop of blood upon a deeper scratching. He calls the case seborrhœic psoriasis because of the abundant pityriasis of the scalp. Such forms, Darier says, are more benign than the ordinary forms and yield more readily to treatment.

Tuberculin Exanthemata, On Microscopic Changes in. LOW. (*Scot. Med. and Surg. Jour.*, 1905, xvii., p. 240.)

Low examined the skin taken from three cases in which an exanthem followed injections of old tuberculin. His first case was a girl of fourteen with tuberculosis verrucosa cutis of the back of the foot and toes.

After the injection of 1-10 mgm. of tuberculin, a generalized eruption appeared on the trunk and limbs which was papular at first, but which became more marked after each injection, until it finally lost its papular character and became diffuse with a branny desquamation. The redness faded in two days, but the desquamation continued for a week. A piece of skin excised from the back after the third injection, showed an epidermis which was normal except for a slight hyperkeratosis. In the corium there was a marked small round cell infiltration along the course of the vessels, especially those of the papillary layer, and also a considerable number of mast cells. Around the follicles at the level of the necks of the sebaceous glands were large collections of small round cells, mast cells, epithelioid cells and, in a few instances, giant cells. The two latter were found near the centers of the foci, but there were no evidences of degeneration. There was slight infiltration about the sweat glands. No bacilli were found. The second case was one of lupus vulgaris in which a papular eruption somewhat resembling lichen scrofulosorum appeared after two injections of 1-10 mgm. and 1 mgm. and which disappeared in thirty-six hours without leaving a trace. One week later a piece of skin was excised from the mid-axillary line where the papules had been numerous. As in the first case, an infiltration of small round cells and mast cells was found about the vessels, follicles and sweat glands, but there were no giant cells. The third case was one of scrofuloderma in which a grouped, follicular, papular eruption developed after an injection of 1-10 mgm. Two days after the injection a group of papules was excised. The histological changes in this case also were like those described in the first, but were more marked. Epithelioid and giant cells were numerous in the collections about the follicles, but were not found at all elsewhere.

Low considers that these three cases are very closely allied to lichen scrofulosorum both clinically and microscopically.

Urticaria, A Case of Acute, With Striking Complications.

WENDE.

(*Deutsche Med. Wchnsch.*, 1905, xxxi., p. 1433.)

Wende reports the case of an insane man of fifty-eight, who was suddenly seized with a most intense and frequent desire to urinate. At the same time the patient complained of marked subjective sensations of swelling of the mucous membranes of the nose and mouth, smarting of the eyes and itching of the entire body. When seen one hour later there was present œdema of the lids, nose and lips. The lids were injected and secreted a slimy pus. An abundant watery secretion ran from the nose while saliva poured from the half opened mouth. The mucous membranes of the nose and mouth were œdematous, but showed no eruption. On the body and lower extremities were enormous numbers of bean sized wheals. On the face, ears, neck and axillæ were irregular, red streaks and patches. Nowhere could wheals be produced artificially. Tempera-

ture 99.5, pulse 120 and small, respiration 30 and labored. The nervous reactions were normal. There were no especial gastric or intestinal symptoms. The urine was clear and contained no albumen or sugar. In two and a half hours the redness and the wheals had disappeared, but the œdema and abnormal secretion of the mucous membranes persisted a few hours longer.

Psoriasis, True and False Palmar. W. DUBREUILH. (*Jour. de Med. de Bordeaux*, 1905, xxxv., 701.

Dubreuilh begins his article with the statement that among the palmar and plantar eruptions the most frequent and the poorest known are the dry, circumscribed affections still often called by the deplorable name of psoriasis palmare. Like the term lingual psoriasis, palmar psoriasis has been used to denote affections which have nothing to do with psoriasis and has been applied to hyperkeratotic and squamous plaques alike. As syphilis is the commonest cause of such plaques the term has become synonymous with syphilis, at least to the general practitioner. Unlike lingual psoriasis, however, palmar psoriasis does exist and is even quite common, most often in connection with lesions elsewhere, but sometimes alone. It begins as a small, brown, round, hard, slightly elevated lentille which grows peripherally and whose center becomes covered with a fine, scarcely appreciable desquamation which, however, can be demonstrated by scratching and thus producing a paling. Eventually a plaque is formed of circular or irregular shape and festooned by confluence with neighboring lesions, but always well defined. The border is brown, slightly elevated and firm to the touch. The central area is reddened and covered with an epidermis finer than normal, drier and sometimes crackled. Grattage demonstrates the nearly invisible desquamation by the appearance of a white line due to the raising up of the very fine lamellæ. This paling by grattage Dubreuilh regards as one of the most constant signs of psoriasis wherever its seat. Although it is found in other affections such as the psoriatic syphilis it is always sharper in psoriasis.

Psoriasis is distinguished from syphilis of the palm by its less marked redness and infiltration, by its lesser tendency to fissure, by the lack of the marginal, epidermic collerette of the syphilitic lesion and by the blanching on grattage.

Lichen planus of the palms is rare, is itchy, forms plaques of a diameter of one or two centimeters, although sometimes larger, is festooned by confluence, is very slightly elevated, is of a redness which borders on violaceous, has a depressed center and no appreciable desquamation.

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TWO CASES OF PAGET'S DISEASE TREATED BY THE X-RAY, WITH A REPORT OF THE MICROSCOPIC FIND- INGS IN ONE OF THEM AFTER PROLONGED TREAT- MENT.

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Philadelphia Hospital.

Read before the Twenty-ninth Annual Meeting of the American Dermatological
Association, New York, December 28, 29, 30, 1905.

THE two cases which form the subject of this paper are not reported because of any special clinical features, for they conformed closely to the ordinary type of Paget's disease; but they are reported because of the very considerable degree of success which attended the treatment, and, more particularly, because one of them afforded unusual opportunities to study microscopically the effect of exposure to the X-ray for a considerable period upon this hitherto intractable affection.

The first case occurred in the person of a woman, Mrs. C., fifty-three years old, who was brought to me by her family physician for advice concerning a disease of the left breast, of thirteen months' duration, which consisted of a circular, dollar-sized, sharply circumscribed, bright-red, somewhat crusted patch occupying the nipple and areola, a considerable part of the nipple having been destroyed. The subjective symptoms which attended the affection were so slight as to occasion the patient little or no annoyance. The most careful palpation failed to disclose any change in the mammary gland or in the glands in the axilla. After employing the usual remedies for some months without producing more than a slight temporary improvement, it was decided to try the X-ray; and accordingly this treatment was begun in June, 1905.

Exposures were made in the beginning daily, with the anode at

first ten, later eight inches distant from the patch, each séance lasting ten minutes; as soon as slight reaction was manifest the intervals between the sittings were increased to two to three days. After the thirteenth sitting, when marked redness of the skin was present, it was noted that the patch was smoother and dryer; and the improvement continued steadily until, after the 19th exposure, five weeks from the beginning of the treatment, the diseased area was completely healed. Two more exposures were made and the treatment was then suspended for one month; at the end of this time the breast was still apparently sound. Two months later, however, when the patient was again seen, the summit of the nipple was covered by a small crust covering a shallow ulcer, and there was also a superficial ulcer in the areola close by the nipple. The X-ray treatment was resumed, and reaction appeared more quickly than before, the skin becoming red after the seventh séance; and after the twelfth, a burn of moderate severity occurred, which healed quickly, however, under a picric acid ointment. In February, 1903, it was noted that the nipple and areola were completely healed with the exception of a small superficial ulcer in the center of the former. A little later some retraction of the nipple began to be noticed; and about this time, too, it was thought that the mammary gland was slightly firmer than on the sound side. From this time on the entire breast was exposed to the ray at each sitting; and after a few weeks it seemed to have resumed its normal softness, a special note being made at this time that there was "no appreciable breast-tumor." In September three shot-sized, red nodules appeared in the areola, the treatment having been suspended for two months and more because of the patient's absence from home. In October the exposures were again resumed, at five day intervals, and after six séances, the reaction was so marked as to necessitate the suspension of the treatment. (It will be observed that there was a rapidly increasing sensitiveness to the rays). In December, for the first time, the breast seemed entirely well; the center of the nipple, which had heretofore always shown a crust covering a small ulcer, was completely healed. Six months later the nipple became slightly ulcerated again, but healed promptly after resumption of the treatment. The increased sensitiveness of the breast was still more apparent at this time as two exposures, of ten minutes each, were sufficient to produce a well-marked dermatitis. Hardness of the mammary gland was now again noticed, but instead of disappearing as formerly, it continued, with increasing retraction of the nipple. In February of this year, as the X-ray

had been without appreciable influence upon the breast tumor, it was decided to remove the breast; and this was accordingly done by Dr. John B. Deaver.

With the exception of a single brief relapse, the nipple and areola had been well for somewhat more than a year, and at the time of the operation, presented no sign of active disease. Altogether there had been sixty-one exposures of from ten to fifteen minutes each, at intervals varying from one day to one week, the average interval being three days, with periods of complete suspension of the treatment lasting from several weeks to several months. The interruptions in the treatment were necessitated partly by the increasing susceptibility of the skin to the ray, but much more by the patient's absences from home.

At the time of the operation, material was taken from the site of the nipple, from the areola, from the sound skin remote from the diseased area, and from the mammary gland.

In the first few sections of the areola examined, the epidermis, which was slightly thicker than normal, showed very little alteration of its cells; but upon going over a larger number of sections carefully, slight but characteristic changes were observable. There was moderate parakeratosis and here and there were isolated examples of large vacuolated cells containing a shrivelled nucleus lying free or attached to the cell-wall, situated usually in the lowest portion of the rete, and an occasional large, round or oval, granular, coccidia-like cell. The papillæ were practically absent, and no trace remained of the plasma-cell exudate which usually occupies this and the underlying part of the corium. Scattered throughout the upper portion of the corium were numerous irregular masses of yellowish-brown, granular pigment and there was a moderate degree of degeneration of the collagen. In not a single section were any sebaceous glands seen, and the few coil-glands noticed were markedly atrophied. The site of the nipple showed no very marked alterations of its epidermic covering; the most notable departure from the normal was a species of condensation of the rete by which the intercellular spaces were so diminished in some sections as to be scarcely noticeable, with disappearance of the prickles. There was a decided increase in the density of the corium, with disappearance of the papillæ. The most significant changes were observed in the milk-ducts. These were filled with swollen epithelial cells many of which had undergone the same peculiar degeneration observed in the cells of the epidermis of the areola, and the center of the ducts was,

in most cases, occupied by a mass of granular *débris* probably arising from necrosis of the centrally situated epithelium. Sections of the mammary gland showed moderate, but unmistakeable evidences of carcinomatous change. Many of the alveoli, instead of presenting a single row of cells, were entirely filled with swollen epithelium, and frequently contained necrotic masses of cellular *débris* similar to that noticed in the ducts of the nipple.

The greater part of the alterations just described were, of course, the result of the morbid processes which characterize this disease, but certain of them, such as the disappearance of the plasma-cell exudate, the deposit of pigment in the corium, and the disappearance or atrophy of the glandular structures, I regard as the direct result of the treatment. Brief reference might be made here to the somewhat unusual situation of the pigment which was almost entirely limited to the upper portion of the corium, there being but a very slight increase in the amount of pigment in the pigment-bearing cells of the rete. It may be mentioned that this same pigmentation was observed in the perfectly normal skin of the breast some three or four inches removed from the seat of the disease, which had been exposed to the X-ray.

As the second case was almost the exact counterpart of the first both as to its clinical features and as to the treatment and its results, a very brief account of it will suffice.

Mrs. R., sixty years old, came under my observation in May of this year, having an oblong, somewhat crusted patch, with slightly elevated, irregularly polycyclic borders covering the areola of the right breast, the nipple having been completely destroyed, leaving a marked retraction at its site. The patient stated that the disease had begun as an excoriation of the nipple three years before, was better and worse for a time, slowly spreading to the areola. Intense itching, paroxysmal in character, accompanied it, but never any pain, and there was always more or less oozing and crusting. At the time of the first examination it was thought that there were some indications of a tumor of the mammary gland, but these were not sufficiently well-marked to be certain about this. The axillary glands were not palpable. X-ray treatment was begun at once, in the same manner as in the case previously narrated, and after the sixth exposure the patch was apparently healed although it was still red; and the breast seemed perfectly soft without any discoverable tumor. One month after the beginning of the treatment the areola, although it remained healed, was somewhat indurated. After fifteen exposures had been made, at intervals of from three days in the beginning to

five days or a week after healing, the treatment was suspended for two months, the patient going to the country for the remainder of the summer. Upon her return in September, it was noticed that there was slight redness and scaling in the depression where the nipple had formerly been, accompanied by moderate itching; three more exposures were then made, and the healing seemed to be complete. At no time during the treatment was there any reaction beyond a slight reddening of the skin followed by branny desquamation. When seen a few weeks ago the areola and site of the nipple showed no signs of active disease, but the mammary gland presented a suspicious firmness to the touch; and I feel quite certain that carcinoma is already present in the breast.

As a matter of course, but a limited number of cases of Paget's disease treated by the X-ray are as yet on record, but of those reported, the greater number have shown very favorable results. Cures have been reported by Meek, Bisserie, and Belot; and quite recently Jungmann and Pollitzer have published a detailed account of an unusually extensive case accompanied by a carcinomatous tumor in the axilla, in which the X-ray produced not only a remarkable improvement in the ulcerating surface of the breast, but a decided diminution in the size of the tumor in the axilla, the patient's general condition at the same time being greatly improved. Stelwagon observed improvement in a case under his care; and Fordyce has reported a doubtful case of Paget's disease of the gluteal region in which X-ray treatment was ultimately followed by cicatrization of the ulcerating surface, although at first it was thought that the treatment was having an injurious effect. Unfortunately in none of the cases reported had a sufficient time elapsed to enable one to say that a definite cure had taken place.

From the results obtained by the treatment in the two cases reported in this paper, and, more particularly from the microscopic study of one of them after the treatment had been continued for a considerable time, I believe we may conclude that the careful, systematic, and prolonged use of the X-ray may completely and permanently cure the disease of the areola and nipple; but I also believe that this agent has very little effect upon the epithelial proliferation in the ducts of the nipple and in the alveoli of the mammary gland. If Paget's disease is in the beginning limited to the areola and surface of the nipple, the ducts and mammary gland becoming involved only after some considerable time, then we may hope, by the early and persistent use of the X-ray, to bring about a complete and lasting cure; but if the ducts and gland are involved in the process from

the beginning, the knife of the surgeon should be our first, not our last resort. Which of these two views of the malady is the correct one, is, in my opinion, not yet definitely settled.

DISCUSSION.

DR. FRANCIS J. SHEPHERD said that in any case that was at all suspicious of Paget's disease, he would not wait for the result by treatment by the X-rays, but would amputate the breast immediately, together with the adjacent lymphatic tissue. The rapid involvement of the lymphatic tissues in these cases was well known, and even a brief delay might prove too long. When the retrosternal glands had once become affected, the case was hopeless.

DR. J. NEVINS HYDE said he was glad that Dr. Shepherd had brought up the question of early operation in these cases. In former years, the speaker said, he was quite incredulous when the surgeons to whom he showed cases of Paget's disease, with involvement of the ducts, would inform him that local treatment would prove quite hopeless. He recalled two cases that were treated by removal of the breast, and in both the results were quite satisfactory up to the time that the patients were lost sight of. Since then he had had one clearly marked case in which the small of the back was involved, and one or two of the breasts in which the X-ray was first used. As the result of his observation of those cases he had formed the conclusion expressed by Dr. Shepherd. The treatment of these cases should not begin with the X-ray. In every well defined case, the complete ablation of the breast should be immediately done, followed, if it was deemed advisable, by X-ray treatment as a prophylactic measure.

Dr. Hyde said he could recall one case of Paget's disease in which X-ray treatment, primarily applied, apparently gave a very satisfactory result.

DR. S. SHERWELL said that in 1881, while attending the International Congress of Physicians and Surgeons, he saw a number of these cases that were exhibited by Paget. He immediately recognized the similarity between them and a case of his own in which he had regarded the disease of the nipple as a very obstinate type of eczema. In March of the following year he presented that patient at a meeting of the New York Dermatological Society, and it was subsequently reported in the *Archives of Dermatology*, in January, 1883. He also wrote a paper on the subject, which appeared in the January (1884) issue of the *American Journal of Medical Science*. This was after Dr. Duhring's paper on the same subject.

Dr. Sherwell said that his case was a typical one, and the disease followed its typical course. It was the first case of the kind reported to the profession in this country. The patient was a very old

lady, upon whom an operation was out of the question. Death was due to some intercurrent affection.

The speaker recalled another case that came under his observation shortly afterwards, in which he built a dam all around the affected area, and then applied the acid nitrate of mercury. The treatment gave rise to some pyalism, apparent cure of the affection for a time, and then considerable induration of the tissues followed, subsequently the ordinary cancerous condition. The affected breast was ablated later.

Dr. Sherwell said he had some objection to classifying all these lesions reported as Paget's disease when they occurred elsewhere than on the nipple. The term should be restricted, he thought, to those occurring on the nipple. When it occurred on the buttocks, or elsewhere than on breast, it should be called an epithelioma, and not Paget's disease. The speaker said he did not know that the latter differed essentially from the ordinary form of epithelioma, but he thought it advisable to confine the name to those cases in which the lesion occurred on the breast and nipple.

DR. FRANK H. MONTGOMERY mentioned a case that came under the observation of Dr. Hyde and himself about three or four years ago. The nipple was retracted and partially destroyed. The patient was a woman who was on the verge of melancholia, and who declared that rather than submit to an operation, she would commit suicide. In consequence, operation was delayed and X-ray treatment instituted. In the course of a few months the lesion had disappeared, leaving a beautiful, soft scar. The woman was heard from occasionally, and remained well for two or three years. Last summer she returned for examination. There was no recurrence at the original site of the tumor, but a short distance away, in the body of the gland, there was an irregular, nodular mass about half the size of an adult fist. Her husband was informed that an operation was imperative.

In another case, to which Dr. Hyde had referred, the lesion was a very superficial one, located in the center of the lumbar region. It was irregularly oval in outline, about six by four inches in diameter, crusted and partly ulcerating, with a slightly elevated border. Its center was distinctly epitheliomatous. Under X-ray treatment, the lesion cleared up entirely. As the treatment progressed, the patient showed an increased susceptibility to the rays, so that they finally had to be given with the greatest caution. The disease shows no sign of recurrence after a period of one year.

DR. A. RAVOGLI referred to a case of Paget's disease in which he had found peculiar, pearl-like bodies. The lesion rapidly developed into an extensive carcinoma, which resulted fatally.

The speaker said he had come to regard Paget's disease as a precancerous condition, developing as an epithelioma, and gradually involving the deeper layers of the skin. The lesion was first superficial and

then papillary, and gradually gave rise to the different varieties that were at times met with.

Dr. Ravogli said that while he had seen one case of Paget's disease almost healed under the influence of the X-ray, he regarded the action of the ray in these cases as only temporary, and he did not believe they could be relied upon to give permanent relief. The best remedy was the knife.

Dr. CHARLES W. ALLEN said he did not think the X-rays merited such a bad name as Dr. Ravogli had given them. In his own experience, as well as that of many other observers, he had seen epitheliomata disappear under the influence of the X-ray, and the patients had remained cured for many years. Nothing more than that could be expected from any method of treatment, and as a dermatologist, he did not agree with those members who so strongly favored the use of the knife. In the various caustic pastes we have a remedy which is oftentimes superior to the knife.

Dr. Allen thought that Paget's disease probably existed much as did mycosis fungoides, in a variety of stages, and that it passed through various degrees of malignancy, just as an innocent eczema of the lip might in the course of time become infected with the germ of cancer, and develop into a malignant papillary dermatitis, and perhaps necessitate a wide excision or other radical measure in order to eradicate it. The speaker could recall at least two cases in which the lesion about the nipple looked very much like Paget's disease, but which he treated as eczema with applications of ichthyol, resorcin, methylene blue, etc., and those patients never developed Paget's disease. In his hospital service he had seen many cases of eczema in which the appearance of the lesion made one suspicious of Paget's disease, but which cleared up under simple treatment.

After four years' experience with the X-ray, Dr. Allen said he had come to the conclusion that in dealing with any cancerous process involving the substance of the glands of the breast, the breast should be excised. It had been repeatedly shown that the rays alone were not curative in such cases. In every case in which the diagnosis of Paget's disease was beyond doubt, with involvement of the gland, the breast should be removed, and then X-ray treatment could be given afterwards.

Dr. THOMAS C. GILCHRIST said he agreed with Dr. Shepherd that as soon as the diagnosis of Paget's disease was made, the breast should be ablated. The disease ranked with epithelioma of the lips and tongue in the early lymphatic enlargement that it gave rise to. The careful report of the microscopic findings in one of the cases given by Dr. Hartzell had shown that the X-ray could not be depended upon in dealing with malignant involvement of the deeper structures, and the

X-ray treatment should not be recommended at all in cases where early lymphatic involvement was feared.

DR. HARTZELL, in closing, said there had been a good deal of what he regarded as nonsense talked and written about the pathology of Paget's disease. At the last meeting of the American Medical Association someone had read a paper in which the statement was made that the disease began in the gland, and that the cutaneous manifestations were produced by discharge from the nipple. There was no foundation for the latter part of this statement.

In the treatment of Paget's disease, the surgeon's advice was to excise it. The speaker said he wished to repeat the statement made in his paper that if it was once demonstrated that Paget's disease was carcinoma from the beginning, then an operation should be advised without a moment's delay. Paget's disease was not an eczema in the beginning, nor had it been proven that it was carcinoma in the beginning. Personally, Dr. Hartzell was inclined to believe that it was a peculiar degeneration of the epithelium, a similar degeneration occurring in the epithelium of the milk ducts and in the gland acini. He did not believe it was ordinary carcinoma, and the carcinoma of the breast following it seemed to differ from the ordinary form. In speaking of the clinical course of the disease, Dr. Hartzell said that carcinoma of the breast ran a comparatively rapid course, while many cases of Paget's disease lasted for years.

While ablation of the breast was the first consideration from the surgeon's point of view, the operation was a very serious one for the patient. To her, it meant a dreadful disfigurement; a sacrifice of a part of her sexual peculiarities, and every woman regarded the operation with more or less horror. The question, therefore, should not be dismissed, as most surgeons would do, by saying, "Let us remove the breast." For example, he has under his care at this time a woman with a superficial excoriation of the nipple, with redness and swelling of the areola. Probably, the lesion represents the early stage of Paget's disease, although no change in the gland itself can be made out. At present the affection is comparatively trivial. It is in cases of this character that the question of treatment is surrounded with difficulties.

Dr. Hartzell said he looked upon Paget's disease as a disease *sui generis*, the histopathology being so characteristic that it was quite possible to make a diagnosis from an examination of a section of the epidermis of the areola.

DR. THOMAS C. GILCHRIST said that about a year ago he saw a case similar to the one reported in Dr. Hartzell's paper. The patient was a woman of fifty, with a slight excoriation of the left nipple, covering an area about the size of a pea. There was no infiltration, and from its appearance it could not be pronounced malignant. It healed up

under the influence of the X-ray, and showed no signs of recurrence a year afterwards. Dr. Gilchrist said the patient was still under his observation. In his opinion, the lesion was practically an eczema, or else it may have represented an extremely early stage of Paget's disease.

A CASE OF PITYRIASIS RUBRA OF HEBRA'S TYPE, WITH AUTOPSY REPORT.

By FRANK HUGH MONTGOMERY, M.D., and PETER BASSOE, M.D.,
Chicago.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

THE rarity of this disorder and the small number of autopsies recorded, furnish our excuse for presenting the following case:¹

History: The patient, J. W., a farmer, is a fairly well nourished man, forty-six years of age. His father died at the age of eighty-four, and his mother at the age of eighty-seven. The health of both had been good. The father was an occasional user of alcohol. The patient has three sisters and one brother living and in good health. Four sisters are dead, one from tuberculosis, one from typhoid fever, and two from unknown causes. One brother died of pneumonia. The patient's general health has always been good. He had typhoid fever seven years ago, and for twenty-seven years has suffered more or less from asthma, which has been much better since the beginning of his skin disorder. For fifteen years, with the exception of six years during which he abstained wholly, he has used alcohol periodically to excess, indulging in sprees of three or four days' duration, on an average of once in ten days to two weeks. He has never had delirium tremens, nor any indication of it, but for the past few months had not been quite right mentally, being much depressed, nervous, and at times hysterical. He drinks from three to six cups of coffee a day, and smokes tobacco excessively. He has four living children in good health. One child died in infancy. His wife had three miscarriages.

The skin disease began in February, 1904, as a large blister on

¹ The patient was sent to Dr. Hyde and one of the writers, by Dr. Mackintosh, of Mount Pleasant, Iowa, to whom we are indebted for some points in the history.

the plantar surface of the right foot. The patient states that this spread to almost the entire sole of the foot. In a few days an erythematous and slightly vesicular eruption appeared on the left foot, and a week later both buttocks were affected in a similar manner. Within a month almost the entire surface of the body was covered with a red and slightly scaling rash. During the first few weeks of eruption the itching and burning were severe, and occasionally (the patient thinks probably the result of scratching), weeping occurred in places. Soon after the exanthem became generalized, exfoliation was pronounced, and for the past sixteen months the skin has remained simply red and scaling, showing no other type of lesions. The condition grew worse gradually except that the itching became less intense, but there has been a steadily increasing susceptibility to cold.

Two months after the eruption became generalized, the pubic hairs fell out; those of the eyebrows also were lost but returned. The plantar and palmar surfaces showed a markedly thickened skin and on one or two occasions peeled off in considerable areas. From May 15 to August 3, 1905, he was an inmate of the Mount Pleasant, Iowa, Hospital for Inebriates. Dr. Mackintosh states that during this period patient grew steadily worse, physically and mentally, notwithstanding the fact that every effort was made to better his condition.

The patient entered the Presbyterian Hospital, Chicago, in the service of one of us (Montgomery), August 7, 1905. At this time the skin of his entire body was reddened and freely exfoliating. The color of the skin was of a dull red, or cyanotic hue. The skin of the lower extremities and dependent portions being darkest in color. The scales were fine and shed in great abundance from all portions of the body except the palms and soles, where the skin was markedly thickened. On no part of the body was there a marked accumulation of scales such as occurs in a generalized psoriasis or in the usual exfoliative dermatitis. The skin in general was slightly thickened and oedematous and looked as though it had been acutely inflamed by the last ointment the patient had used and which he said burned when he applied it. In a few areas there were evidences of infiltration. The scalp was but slightly reddened and covered with fine scales, which were not so abundant as on other portions of the body.

The hair of the scalp, beard, moustache, and eyebrows was short, coarse and very thin. There was no hair in the pubic region. The nails showed transverse lines and furrows, and were slightly thickened, but otherwise unaffected.

The patient complained of burning and itching, and was inclined to rub the skin, but on no part of the body were there excoriations or other evidences of scratching. He was extremely sensitive

to cold, and even on a hot summer day, with the thermometer above 90 degrees, would lie in bed covered with several blankets, which most of the time he kept pulled up over his face. He resisted every attempt on part of the attendants to remove the blankets for purpose of examination, and the mere thought of uncovering his skin and exposing it, as he said to the cold, even on a hot day, seemed to fill him with terror.

At the time of entrance he had suffered for several days from acute pain in the epigastrium, and from diarrhœa, due possibly to the absorption of the medicament in the ointment which he had been rubbing into the skin.

Mentally, he was at times stupid; at others, extremely nervous and almost hysterical, begging to be relieved and fearing that he would not recover. A general examination of the chest and abdomen showed little or nothing abnormal. The heart could not be very definitely outlined, and the sounds were somewhat distant. The right pupil was slightly larger than the left, but the ocular accommodation and movements were normal. The elbow, wrist and knee jerk were all slightly exaggerated to about the same degree on both sides. There was apparently slight general muscular incoördination.

The urine showed no albumen, no sugar and no casts. The temperature was $99\frac{1}{2}$ degrees. Blood examination showed erythrocytes, 4,200,000; leucocytes, 11,100; hemaglobin (von Fleischl), 75 per cent. Examination of the feces disclosed nothing abnormal.

The patient was put on a milk diet and given for the first three days blue mass and salines, with large quantities of water, for the purpose of eliminating toxins and overcoming intestinal disturbance. The result was that he was promptly made more comfortable. The skin meanwhile was completely enveloped in a simple soothing ointment, and in a few days most of the thickening and œdema had disappeared. The treatment from this time was purely symptomatic. Elimination was secured by the daily use of salines and occasional doses of calomel. The diet was simple—largely milk—but nutritious. He was given simple tonics, chiefly strychnine and quinine, and occasional doses of veronal in order to secure sleep.

He remained more or less restless and hysterical, and did not sleep well. He complained from time to time of pain in his head, and when not lying in a semi-stupid condition was inclined to be petulant and hysterical. Only once or twice did he permit his body to be uncovered without protesting vehemently against being subjected to the cold. He also complained of the pressure of any dressing laid upon his skin and would tear off the bandages when the nurse was not watching. It was only by putting his hands in cloth mittens that dressings could be retained on any part of the body.

At the end of a week his mental condition, which had improved

for a day or two, again became very much worse, he was partially delirious at times, getting out of bed and walking around the ward, giving the attendant some difficulty in getting him back to bed. His temperature at this time rose to from 101 to 102 degrees at night, being a degree or two less in the morning. His temperature throughout was exceedingly irregular.

August 15, eight days after admission, a twenty-four hour specimen of urine gave 600 c.c., specific gravity 1026, solids 24.35 grams, no albumen, no sugar, no casts, a few squamous cells.

From August 19 to 22, the patient was comparatively quiet, slept better, and was generally more comfortable. On the 23d he was exceedingly irritable the early part of the night; later he fell into a semi-stupor and had a large involuntary bowel movement. The next morning he was apparently more comfortable and sleeping heavily. A few hours later he became comatose and died that afternoon.

The urine was examined daily for several days prior to death, but gave no evidence of albumen.

Blood cultures were made several times during the two weeks the patient was under observation, but they all remained sterile.

NECROPSY REPORT

(Dr. Bassoe.)

The necropsy was held August 25, 1905.

Anatomic Diagnosis: Universal exfoliation of epidermis (pityriasis rubra). Pulmonary œdema and congestion. Pulmonary emphysema. Healed tuberculosis in left lung. Fatty liver. Chronic diffuse nephritis (moderate degree). Chronic atrophic gastritis. Sclerosis of aorta.

The body is that of a fairly well-nourished man. The skin of every part of the body is dry, red and scaling. A white ointment has been applied everywhere. In many places patches of epidermis several square inches in size are peeling off. In no part of the body does normal skin exist.

The peritoneal cavity is empty and free from adhesions.

The pleural cavities are also empty.

The pericardium shows no change.

The organs of the neck were not examined.

The lungs meet in the median line; both are voluminous, very light and spongy anteriorly, where large vesicles are present. The left lung weighs 640 grams, and crepitates everywhere. Both lobes contain much frothy fluid, especially the lower. There is a small calcareous nodule in the lower lobe. The posterior part of the same lobe contains considerable blood.

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The right lung weighs 820 grams, and resembles the left. All lobes contain large amounts of frothy fluid, especially posteriorly, while the anterior borders are emphysematous.

The heart weighs 320 grams. The endocardium is smooth. The cavities are of proportionate size. The myocardium is soft and pale.

The beginning of the aorta contains a few sclerotic patches.

The spleen weighs 200 grams. It is smooth externally and rather soft. The cut surface is of a chocolate color with distinct trabeculae and soft pulp.

The stomach is rather large, with thin mucous membrane.

The intestines show no change.

The liver weighs 2600 grams. It is soft, light grayish externally and on section, the lobular markings are fairly distinct. The gall-bladder contains fluid bile.

The pancreas is soft, but otherwise of the usual appearance.

The adrenals are of normal size.

The kidneys together weigh 430 grams. They are of equal size. The capsules strip with increased resistance. The right kidney is darker on the cut surface. The cortex measures 8-10 mm. in thickness; the cortical markings are fairly distinct. There is no change in the pelvis. The left kidney resembles the right, with the exception that the cortex is thicker and paler, and the markings less distinct.

The urinary bladder and the prostate show no changes.

The seminal vesicles are filled with semen.

The testicles and epididymis show no changes.

The scalp presents skin lesions similar to those of the rest of the body.

The skull and dura, brain and spinal cord are unchanged externally. After hardening in 10 per cent. formalin the brain was sectioned and no changes found.

Histologic Examination. Lung. In the section examined, œdema and hyperæmia are the principle changes.

Aorta. The section includes a raised, thickened area in the intima, made up of hyaline fibrous tissue.

Spleen. The pulp is relatively increased in amount and hyperemic. Fibrous tissue has commenced to be formed about the arteries within the Malpighian bodies.

Kidney. The capsule is the seat of slight fibrous thickening. Just beneath the capsule a couple of contracted fibrous glomeruli are

seen, surrounded by small collections of mononuclear cells. Throughout the section there is slight increase in connective tissue within the glomeruli, and also slight fibrous thickening of the glomerular capsules. The epithelium of the convoluted tubules is generally swollen and granular, with the nucleus intact, as a rule, though many cells have lost their nuclei and are disintegrated, and in some areas all the cells of the tubules are devoid of nuclei and the lumina filled with detritus. In other cells the nucleus is faintly stained. The epithelium of the straight tubules is well preserved. Hyaline casts are seen in some of the larger straight tubules.

In some of the smaller vessels sclerotic changes are met with. Aside from the fibrous changes mentioned, there is little increase in connective tissue.

The liver shows considerable fatty metamorphosis.

The pancreas and the prostate are not altered.

In the testicle we see slight glandular atrophy, with a slight relative increase in fibrous tissue.

The nervous system. (a) Brain. Pieces of central and cerebellar cortex and oblongata were hardened in alcohol and stained by Nissl's method and by hematoxylin and eosin. There are no definite changes except an apparent increase in yellow pigment in the pyramidal cells and the cortex.

(b) Cord. Specimens were prepared by the hematoxylin-eosin, Nissl, Weigert-Pal, and Marchi methods. Only slight changes are noted, in the form of slight tigrolysis of the ventral horn cells, together with relative increase in the yellow pigment. Numerous corpora amylacea are seen in the white matter and along the pia. There is no degeneration in the white tracts. With the exception of one specimen from the upper cervical region, the central canal was found occluded at all levels examined.

(c) Spinal ganglia. These were fixed in Zenker's fluid and stained by Nissl's method. Here also slight tigrolysis and a rather large amount of intracellular pigment are noted.

Bacteriologic Examination. Several agar and blood serum slants were inoculated with blood from the heart. On one tube the staphylococcus pyogenes aureus developed. No organisms were found in smear and cultures from the bile.

The necropsy findings unfortunately do not throw much light on the nature of the skin affection, and also leave some doubt as to the cause of death. The conditions found suggest a terminal infection, either uræmia or a toxæmia secondary to the skin disease. The

growth of staphylococcus on a single tube inoculated with the blood from the heart was undoubtedly due to contamination by extraneous matter, as there were no other indications of a general staphylococcus infection. The comparatively mild renal lesions, together with the result of the urine examinations during life, practically exclude uræmia. The minute changes in the nervous system are certainly purely secondary. By exclusion it appears most probable that death was due to a toxæmia produced by the disease of the skin. The chronic nephritis might be explained by the history of alcoholism, though it may have been produced in part by toxic products from the cutaneous disorder.

HISTOLOGY OF THE SKIN.¹ The papillæ and the upper portion of the reticular layer are moderately infiltrated with cells apparently of connective tissue origin. The infiltration is, as a rule, diffuse, but in places small groups and masses of cells are seen. The deeper portion of the cutis is free from infiltration except about the blood vessels, coil glands and hair follicles. About some of the vessels the infiltration is quite marked. Throughout the cutis the vessels are very numerous, somewhat enlarged and filled with blood cells which are stained a faint brownish-yellow. Many of the vessels show thickening of the intima. The connective tissue immediately below the zone of infiltration is hypertrophied and apparently sclerotic. The hair follicles and coil glands show but little change. No sebaceous glands are to be seen.

The rete pegs are elongated irregularly. The granular layer cannot be demonstrated; the horny layer is wanting in places, in others shows a layer of flat imperfectly cornified cells with nuclei.

In the papillæ and throughout the cutis are seen numerous pigment cells filled with fine brownish-yellow granules; in shape and distribution these cells correspond closely with mast cells, and but for the color of the granules might easily be mistaken for mast cells. Some free pigment is scattered through the cutis. The lower (basal) layer of rete cells in many places has lost its normal pigment. These pigment changes, and in particular the peculiar branching pigment cells, are described in detail by Jadassohn in one of his cases.

SUMMARY. This case in common with others, in its clinical history and in the autopsy findings, certainly suggests some primary infection of the skin, as the cause of, first, the cutaneous disorder, and second of the general marasmus. It must be admitted, however, that the etiology and pathology of pityriasis rubra are as yet un-

¹ We are indebted to Dr. Oliver S. Ormsby for assistance in studying the histology.

solved problems. The relation of the disorder to tuberculosis suggested by Jadassohn's investigations is not at all clear. It is highly improbable that this cutaneous affection is a rare manifestation of so common a disorder as tuberculosis. It is quite conceivable that the marasmus accompanying the skin disease might make the patient a ready subject for tubercular infection.

The original plan of this paper included a summary of the findings in published cases of pityriasis rubra and allied conditions, and in a number of cases under the observation of Dr. Hyde and one of the writers in the hope of throwing some light upon the nature of the disease, but a careful study of the literature discloses the fact that since Jadassohn's excellent and exhaustive review of the subject,² but few cases have been reported and the material furnished is neither sufficient nor of a character to warrant such an attempt. Moreover the work was done four years ago by Tschenlow³ who accepts Jadassohn's views, as do most of the dermatologists of the world,⁴ but adds little or nothing that would throw light upon the real nature of the disorder. Any further discussion at the present time of the nature and classification of pityriasis rubra must necessarily rest chiefly upon clinical findings, and though, if skilfully handled, it might produce what Dr. Pringle aptly calls a "valuable academic exercise," it could contribute little or nothing to the better understanding of the true nature of pityriasis rubra, and consequently such discussion has been omitted from this paper.

Jadassohn's position, and the one generally accepted, is that pityriasis rubra of Hebra is a distinct clinical type if not, indeed, a distinct clinical entity, but that Hebra's original conception of the disorder should be slightly broadened to admit some cases in which recovery, with or without recurrence, takes place, or in which, for short periods and in small areas (often as the result of accident) moisture or decided infiltration may be present, or cases in which itching is severe. He shows further that Hebra applied the term pityriasis to an exfoliation not only of fine branny scales, but also of larger flaky scales. Even with these modifications, pityriasis rubra stands out as a distinct clinical type wholly different from the more common forms of generalized exfoliative dermatitis. It is to be regretted, therefore, that many of the English, and a few other, dermatologists attempt to include as various types of a single disorder, all forms of exfoliative dermatitis. Thus Crocker describes under the

² *Archiv. für-Derm. und Syph.*, 1891, xxiii., p. 961 and 1892, xxiv., pp. 85, 271, 462.

³ *Ibid.*, 1903, lxiv., p. 21.

⁴ See discussions in Transactions of Internat. Congress at Paris, 1889, p. 43, and *Brit. Jour. Derm.*, 1898, p. 447.

title of pityriasis rubra, in common with almost every possible form of partial or universal exfoliative dermatitis, a regional scaly dermatitis of but a few days duration, resulting from mercurial inunction. It is apparent that such a transitory dermatitis can have no relation etiologically, pathologically, or clinically to the pityriasis rubra of Hebra, even though, as Crocker states, cases can be cited showing all grades of variation clinically between such cases and the grave, chronic, and universal type. One might as well argue that because it is not always possible to determine in which generally recognized class of bullous diseases a certain case belongs, that all bullous disorders should therefore be grouped under a single heading of pemphigus, or hydroa.

It is to be hoped that the time will come before long when the position of pityriasis rubra among other dermatoses will be based on etiological or pathological grounds. It is safe to predict, that when the time arrives, pityriasis rubra will be found to be much more closely allied to several other universal and severe disorders, for example pemphigus foliaceus, than it is to the ordinary forms of exfoliative dermatitis. For the present, until we have a better basis for classification, it would be unfortunate to lose sight of, or to obscure, this distinct clinical type generally accepted as Hebra's pityriasis rubra.

The application of the term pityriasis rubra to all exfoliative dermatoses is also unfortunate, as while this term describes as accurately as any short title can, the principal clinical symptoms of Hebra's disorder, it does not describe the symptoms of the ordinary exfoliative dermatoses so well as does the more general term exfoliative dermatitis.

DISCUSSION.

DR. JOHN T. BOWEN said the paper of Drs. Montgomery and Bassoe was of particular interest to him, as he had had the opportunity, some years ago, of observing a perfectly typical case of pityriasis rubra of the Hebra type, in which all the classical symptoms were present, up to the final stage of atrophy, which lasted for a number of years. This entire subject, he said, was still much confused. Some authorities, for example, would scarcely concede this to be an example of the pure type of Hebra's disease because the final stage of atrophy was lacking. In the wards of the Massachusetts Hospital there was recently under observation a case very similar to the one reported in Dr. Montgomery's paper. The patient was a man, fifty-seven years old, whose affection was first noticed a year ago last summer. Since his admission to the hospital, six months ago, there was free generalized

exfoliation, the patient became progressively weaker, with enlargement of the liver and spleen, and after his death, which occurred a few days ago, there were no positive lesions found at autopsy. In this case, Dr. Bowen said, he had expected to see the terminal atrophic stage, but with the exception of a slight degree of ectropion, none could be found.

Dr. Bowen said he did not mean to imply that the case reported by Dr. Montgomery was not a case of pityriasis rubra of the Hebra type, but it did not seem to be a typical one. He had at present under observation in his hospital ward a case of generalized exfoliative dermatitis following a bullous eruption, which had the characteristics of a pemphigus foliaceus, developing into this same form of dermatitis exfoliativa. He simply cited these examples to illustrate the obscurity that still surrounded the subject.

Dr. CHARLES J. WHITE said he was present at the autopsy in the case of pityriasis rubra referred to by Dr. Bowen, and in the lung a small abscess was found which the pathologist thought was possibly tubercular. Some degree of emphysema was also present, as well as the other lesions mentioned by Dr. Bowen.

Dr. WILLIAM A. PUSEY said he was very much interested in this general subject of exfoliative dermatitis, as he had seen several such cases within the past year. Contrary to the opinion expressed by Dr. Montgomery, it seemed to the speaker that we could at best find only clinical, and not pathological entities in any form of exfoliative dermatitis, excepting that of the pityriasis rubra of Hebra.

In one case that came under his observation the patient was a farmer who appeared about eighteen months ago with a papulo-erythematous dermatitis of the leg, which, without the use of any irritating applications rapidly developed into generalized exfoliative dermatitis, the skin surface being very sensitive to cold. Dr. Hyde saw that case with him. There were never any bullous lesions. The urinary findings were negative at that time, but within the past few months a slight amount of albumin had appeared, together with a low specific gravity. He recovered from that attack in about three months, and had since been able to remain well by going South in the winter.

Dr. Pusey said that in his service in the County Hospital in Chicago he had had four cases of generalized exfoliative dermatitis which had convinced him of the great confusion that surrounded the subject. One was a case of universal dermatitis, with some induration of the skin and branny scaling, which was not produced by chrysarobin. This patient improved very much, and was lost sight of. He afterwards returned with a typical psoriasis, the lesions not being very abundant.

Another case was one of generalized exfoliative dermatitis, with some induration of the skin. During the past few months the inflammatory phenomena had almost completely subsided, followed by slight

ectropion and great pigmentation of the skin. In this case the induration of the skin was very marked, and some of the papillæ developed corneous tips.

Many of these cases, Dr. Pusey said, were very similar clinically, but were hopelessly confused so far as etiology was concerned.

DR. GEORGE T. ELLIOT recalled two cases of true pityriasis rubra of Hebra's type which he had been able to follow for a number of years. They went on to the typical atrophic stage, with destruction of the nails and hair. Both began as cases of pityriasis rubra, and always remained so.

Dr. Elliot thought that an absolute distinction should be made between cases of primary exfoliative dermatitis, and those clinical diffuse exfoliative processes which were secondary to other diseases. The latter had nothing in common with pityriasis rubra of Hebra. The forms which developed upon a pre-existing disease and terminated fatally were described years ago by the old French writers under the name of *Herpétide exfoliatrice*, and the process was an end result of pemphigus, of psoriasis, of eczema and of other conditions that were totally distinct from pityriasis rubra. But he believed there was a primary disease—pityriasis rubra—which was an entity of itself and not a secondary development. Erasmus Wilson also described another perfectly distinct type of exfoliative dermatitis, which began with chills, fever, and general implication of the entire skin, running its course in four or five months and usually ending in recovery. This was likewise a primary process and not a sequel of another disease.

Dr. Elliot said he was unaware, either in literature or in his personal experience, of any case of true pityriasis rubra of the Hebra type that did not result fatally, and most of them in some form of tuberculosis. He had in mind two cases in which death was due to tubercular enteritis.

He said he did not see why a generalized dermatitis developing upon a pre-existing psoriasis was an exfoliative dermatitis rather than an acute diffuse psoriasis. When the acute diffuse inflammation subsided, the psoriasis lesions then again appeared, as he had often seen. Why then put the process in the same category with the pityriasis rubra of Hebra, which began as such and continued and ended as such. The pityriasis rubra was a primary process, the diffuse psoriasis a secondary one, and so there should not be any correlation between them. Moreover, in a monograph, which appeared some seven or eight years ago, Brocq covered this entire subject in a most thorough and excellent manner.

DR. LOUIS A. DUHRING said that about twenty-five years ago he reported in the Philadelphia Medical Times a case of what he then thought was pityriasis rubra. The patient had been under his observation for some time before it was reported. It was a generalized universal

superficial inflammatory condition of the skin, the entire integument being affected with a more or less papery desquamation running on from month to month and year to year. During the period that the case was under his observation the patient did not get worse.

Dr. Duhring mentioned another interesting allied case that had been under his observation for a number of years. When he first saw him, the patient was a boy of five years, with marked ichthyosis hystrix. The speaker stated to the parents that he could not do much for him, and he predicted that he would all his life have a troublesome skin. At about the age of fifteen the ichthyosis hystrix disappeared to some extent, the patient having developed an inflammatory condition of his entire integument, which was characterized by persistent inflammation with the free formation of exfoliative papery scales. That was fifteen or eighteen years ago, and the condition had remained practically unchanged up to the present time. The speaker thought that, with propriety, the case might be regarded as allied to pityriasis rubra. Dr. Duhring considered this one of the most remarkable cases he had ever seen, especially as he had followed it during twenty-five or more years.

There was no doubt that under the term pityriasis rubra a number of different clinical types of cases had been grouped. His own view was that the pityriasis rubra of Hebra was extremely rare in this country. He could not recall a single case of pityriasis rubra of Hebra's type, with its classical symptoms and final fatal termination. Neither of the two cases he had referred to above were psoriasis, nor dermatitis exfoliativa, nor were they any variety of eczema.

DR. JAMES C. WHITE said that the subject of the exfoliative forms of dermatitis had once before come up for discussion, and the views of many of the members of the Association had been recorded at that time. The speaker said he had made the statement then—and subsequent experience had only strengthened his view—that pityriasis rubra, as described by Hebra, was a very rare disease. Furthermore, that cases of generalized exfoliative dermatitis of all groups, from the fugitive, recurrent types which were perfectly distinct affections, to the more ordinary forms of generalized, chronic, persistent exfoliative dermatitis, more or less severe, were not recognized or described by Hebra in a distinctive way. He did not give us any information or instruction with regard to that typical condition of the skin, but limited himself to his type of pityriasis rubra.

Dr. White said that cases of exfoliative dermatitis which resembled in many features Hebra's pityriasis rubra were not of so very infrequent occurrence, and the speaker said he was sure that Hebra did not recognize them as distinct. He called them all pityriasis rubra, and gave the type to the extreme cases which lived long enough to undergo atrophy. Personally, he had seen at least half a dozen cases of exfoliative dermatitis which had died. In some there was an occasional forma-

tion of bullæ; some of them developed large areas of oozing dermatitis.

Dr. White said he believed that Hebra's pityriasis rubra should be included in the class of generalized exfoliative dermatitides, as it did not possess enough distinctive features to rule it out of that category. As to pityriasis rubra pilaris, that was an entirely distinct affection, and there should be no reason for confusing it with any of the other forms of exfoliative dermatitis.

Dr. FRANK H. MONTGOMERY, in closing, said he did not know how with our present knowledge, the various views on this subject could be reconciled fully, or just how far Hebra's original conception of pityriasis rubra could be enlarged to admit some of the types of cases suggested by Dr. J. C. White. Jadassohn's review of the entire subject was so thorough and scholarly, and his attitude so rational that his classification should be accepted until a better one can be formed on a pathological or etiological basis.

Dr. Montgomery said that, together with Dr. Hyde, he had seen seven cases of generalized exfoliative dermatitis during the past year. Two were cases of almost universal psoriasis in which, as the result of an acute dermatitis, there were times when the psoriatic nature of the disease could not be absolutely recognized. Another was a case of lichen planus of twenty years' duration, and practically universal. The man was cachectic, and had lost fifty pounds in weight. This case could almost be grouped with the pityriasis of Hebra, and yet in its clinical features it did not resemble that affection. Three of the cases began as seborrhoic eczema, another as pityriasis rubra pilaris.

Here were seven cases of generalized, severe, chronic, exfoliative dermatitis, in three of which there were times when the skin of the entire body was involved. Two of the patients were cachectic and a third had suffered greatly in general health, yet at no time did any of these seven cases suggest clinically the pityriasis rubra of Hebra.

Dr. Montgomery said he thought Dr. Elliot's distinction between the primary and secondary cases an excellent one.

As to the relation of the disease to tuberculosis, the speaker said it was true that tubercle bacilli had been found in the skin in several cases, but so had other micro-organisms. Pure cultures of diplococci had been found, resembling very closely the gonococci. In a number of cases diligent search for the tubercle bacilli had given negative results.

It is highly improbable that so rare a disorder as pityriasis rubra should be a symptom of so common a disease as tuberculosis, but the condition of chronic inflammation and a low grade of vitality of the skin found in pityriasis rubra would render secondary infection with tubercle bacilli or other micro-organisms an easy matter.

PEMPHIGUS VEGETANS

By A. RAVOGLI, M.D., Cincinnati,

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

THE rather rare occurrence of this cutaneous disease, and the interest we feel in it on account of its gravity, has prompted us to make it the subject of a few remarks.

Mrs. I. B., aged twenty-five years, a Jewess, born in Russia, married; emigrated to the United States some five years ago, was the victim of this disease. The history was written up by Dr. E. O. Swartz, my interne in the hospital. Her parents are both living and enjoying good health, her father being fifty-five, and her mother forty-nine years of age. Of four brothers, one died in infancy, the others are well; and of three sisters, one died with eclampsia, the others are living.

She was a woman of a rather delicate constitution, but well developed; she had dark hair and dark iris. At thirteen she menstruated and had always been regular; at twenty-three she was married. She gave birth to a girl, which at the time of her death, was eleven months old, and is still living and well.

Four months after her marriage she noticed a breaking out on her chest, which according to her description, consisted of red erythematous patches, and later on in hard pimples, extending from her chest to the anterior part of her neck. The subjective symptoms consisted in a burning and a slightly itching sensation. The eruptive lesions remained two or three weeks and then disappeared leaving the skin perfectly clear. She was pregnant at that time and consulted a physician, who diagnosed syphilis, and treated her with specific remedies until she came to the hospital.

On September 23, 1904, she gave birth to a healthy girl, and no eruption reappeared until in April, 1905. At that time her navel was covered with blisters, which broke, leaving an excoriated surface oozing serum. Diagnosis of syphilis was repeated and she was again subjected to a more vigorous antisyphilitic treatment.

Soon afterward her genitals began to itch and burn, and according to her own description, the whole pubic region and the groins were covered with small white sores, containing clear water, which latter became turbid. The vesicles burned somewhat, and when breaking, left a raw painful area, which was made worse by the use of poultices.

The patient was growing weaker and the eruption of the vesicles

was gradually extending to the thighs downwards and upwards to the abdomen. Bullæ of the size of hazel nuts began to appear under her breasts and under the axillæ, which breaking, left a raw surface, oozing and then granulating. New blisters were formed at the edge, thus spreading the affected area.

At this point she insisted on being taken to the hospital.

August 8 she was first seen in our ward; she was then greatly emaciated and pale. Our examination did not reveal signs of any luetic infection.

She had paralysis of the right external rectus muscle following a surgical operation. The mucous membrane of her mouth was extremely sore, the gums were grayish and covered with superficial necrotic patches, with a flow of saliva, and so painful that she could not take nourishment. Both axillæ from the internal humeral region to the upper portion of the breast, were covered with masses of grayish brownish vegetations resembling a cauliflower surface. Surrounding the vegetating masses a number of bullæ from the size of split peas to that of hazel nuts, were disposed in a crown, some fresh and distended with a clear serum, others flabby and containing a milky fluid, and still others which had broken and left a deep excoriation.

Likewise masses of vegetations from the inferior sternal region under the folds of both breasts extending to the navel, covering the entire abdominal region. The navel, enlarged and swollen, was thickly covered with the same vegetations, which from there extended to the hypogastrium and the pubic region covering the genitals, and the fossa cruro-genitalis and the internal surface of both thighs. (Plate XXV.)

The edges of the affected parts showed numerous vesicles and bullæ arranged closely together, without inflammatory areola. Abundant secretion was oozing from the excoriated surfaces, which soon altered and produced an offensive odor. In those areas where the granulations had dropped off, the skin healed up, but remained deeply pigmented.

The head, the back and the extremities were free from eruption.

Physical examination gave:

Lungs—negative.

Heart—negative.

Menstruation had stopped since the onset of the disease. Examination of the blood gave:

| | |
|-------------------------|-------|
| Small lymphocytes | 20 % |
| Large lymphocytes | 20 % |
| Polynuclear | 58½ % |
| Eosinophiles | 1 % |
| Transitional | ½ % |

Urine: clear, light amber, 20 ounces in 24 hours, decidedly alkaline, specific gravity 1010, abundant albumen, hyaline and fine granular casts.

She was treated with Fowler's solution, and externally prolonged bath with bicarbonate of sodium, and after the bath the application of resorcin salve, 2%.

On August 24, a crop of bullæ appeared on the shoulders which at first were irregularly scattered, then gradually mixing with new bullæ, invaded the whole dorsal and lumbar regions, leaving excoriated surfaces so painful that she could hardly lie in bed.

The mucous membrane of the mouth, which had healed, was invaded with bullæ, which soon breaking, left very painful excoriations. Vesicles were now extending on the red of the lips.

August 30, the blood and the urine were again examined, as the patient was growing weaker.

Blood:

| | |
|-------------------------|-----|
| Polynuclears | 70% |
| Large lymphocytes | 3% |
| Small lymphocytes | 25% |
| Eosinophiles | 1½% |
| Transitional | ½% |

Urine: 18 ounces in 24 hours, amber color, alkaline, specific gravity 1012, increased quantity of albumen, more hyaline and granular casts.

September 1. Bullæ invaded her feet between the toes. The mouth was healing up so she could take more nourishment. Under the use of the resorcin salve, the vegetations on the abdomen and genitals had nearly all dropped off leaving a dark pigmented scarred surface. The condition of the patient was much brighter and at this time the urine had increased in quantity, the specific gravity was 1014, no albumen and no casts were found.

September 18. Bullæ began to spread to her legs in successive crops, covering nearly the whole body. Her mouth was again affected with bullæ which extended to the pharynx and probably to the larynx as the phonation was lost.

Severe diarrhœa set in, the urine could not be measured but was rather scanty. The little which could be obtained gave an acid reaction, specific gravity 1010, traces of albumen, no casts. Patient was growing worse and weaker; she had been placed in a continuous bath, but could not remain longer and was placed in her bed. Fever, which had all the while been present in an intermittent type, has now grown very high. She was treated then with strychnine and some quinine.

New eruptions of bullæ were constantly coming.

At the beginning of October, the patient was improving somewhat, so much so that on the 11th a great deal of the excoriations had healed up and no new bullæ were forming. The urine was neutral, sp. gr. 1010, no albumen, only a few casts.

On October 16, diarrhœa, erythema on the sacral region from lying in bed.

October 20, a new eruption of bullæ on the lips and in the mouth, the diarrhœa could not be checked, and on the 25th day of October she died.

Autopsy was forbidden.

This disease has the peculiarity of always beginning in one limited point of the body. Herxheimer¹ and Köbner² pointed out the primary localization of the disease in the mucous membrane of the mouth. Neumann³ in his third case of pemphigus vegetans found the first eruptions in both axillæ. In another case of the same disease, which we had occasion to attend, in a lady fifty years of age, the first appearance of the disease was on the mucous membrane of the inferior lip. In this case the beginning of the eruption was on the navel, thus confirming the opinion that pemphigus vegetans has its beginning on or near the mucous membranes. In this case the mucous membranes of the mouth were soon badly affected. But it could not be seen on account of the severe stomatitis, which she had at the time of her admission, due to the mercury which she had taken on account of being treated for syphilis. Later on, while under our observation, the mucous membrane of the mouth became affected with vesicles and bullæ, which soon broke and left excoriated surfaces, with small red papillæ in the center, and hanging shreds of epithelium.

The beginning of this disease from a limited point, was also observed by Haslund,⁴ who referred to a case in a woman, who after an insignificant lesion in her finger got a typical pemphigus and died five months after.

Another peculiarity in our case was that the affection of the navel and of the genitals came at the same time, corresponding with the onset of pemphigus vegetans in a case reported by Kaposi⁵ and Köbner. In a general way, we may state that this disease attacks

¹ Herxheimer. K. Über Pemphigus vegetans. *Arch. f. Derm. und Syph.* Bd. 36, p. 153.

² Köbner. *Deutsch. Arch. f. Klin. Medicine*, 1894.

³ Neumann, J. *Arch. f. Derm. und Syph.*, 1886.

⁴ Haslund. Pemphigus vegetans. *Hospital stidende*, 1891. No. 5. ref. *Monatsh. f. Prakt. Derm.* Bd. xiv, No. 3, p. 118.

⁵ Kaposi. *Wien Derm. Ges.* 1890. Quoted by Herxheimer.

with preference regions of the body where two surfaces of the skin are constantly in contact. In our case the disease began from the navel and spread to the genitals and then to the fossa cruro-genitalis, and upwards to the skin under the breast and to the axillæ. When the bullæ began to spread on the body they were located between the toes.

It has not only occurred in our case that this disease has been mistaken for syphilis. In the case of a man reported by Herxheimer, the scrotum was affected and covered with vegetations, and for nearly a year had been treated with antisypilitic medication. Kaposi described his first case of this disease under the name of syphilis papilliformis. Köbner⁶ laid special stress on the possibility of mistaking pemphigus vegetans for syphilis on account of its attack on the mouth or on the genitals. Murawski⁷ noticed the great similarity of pemphigus vegetans in the anal and genital region to syphilis. He found that it had been treated with mercurial applications, which provoked irritation and made it worse.

In our case it is quite interesting to see the chart of temperature from the time the patient entered the hospital to the time of her death. It constantly shows fever in a remittent type with some intermittence. The temperature ranged from 99° to 103°, and when her condition was graver, the fever was higher. At the time when the disease gave some truce, the temperature was not so high, but at the time of a new eruption of bullæ it was more severe. It is true that fever can be explained by the absorption of septic materials from the excoriated and abraded surfaces, but the constant and remittent fever must also have an origin in serious alterations of the system.

These considerations lead us to the subject of the obscure nature of pemphigus vegetans. Indeed, we do not know much, and, that which Brocq⁸ said, "Nothing more obscure than the etiology of pemphigus vegetans" still holds good. Waelsch claimed to have isolated from the blood and from the contents of the bullæ microorganisms of the order of pseudodiphtheria bacilli, which inoculated in guinea pigs produced pathogenic effects. Stanziale⁹ confirmed the presence of the pseudodiphtheria bacilli found by

⁶ Köbner. Die blasenbildenden Krankheiten der Schleimhäute und der Haut in Hinsicht auf ihre Verwechselung mit syphilitischen Affectionen. *Monatsh. f. Prakt. Derm.* Bd. xvii, 1893, p. 406.

⁷ Murawski. *Bol. Gas. Botkina*, 1902. ref. *Derm. Zeitschrift.* Bd. xi, p. 122.

⁸ Brocq. *Les Pemphigus. La Pratique Dermatologique.* Tome iii, p. 790.

⁹ Stanziale. Zum Studium des Pemphigus vegetans. *Ann. de Derm. et Syphilis.* Jan., '04. ref. *Derm. Zeitsch.* Bd. xi, p. 715.

Waelsch,¹⁰ but he found moreover a diplobacillus in the blood and in the serum of the bullæ of pemphigus vegetans.

On account of the peripheral spreading of the cutaneous lesions, Köbner expressed the opinion of a possibility of an infection passing from one bulla to another. This infection, however, must be considered of a systemic origin and in the sense of Köbner, ought to be considered as the result of a general poisoning. In some cases of iodismus with presence of bullæ, there is a tendency to the formation of vegetations. The condition of the urine shows alteration in its quantity and in its quality. The quantity of the urine voided in the twenty-four hours has been constantly under the normal, and it has increased during the intervals of truce granted by the inexorable progress of the disease, and has again diminished at each new onset. The reaction has been found constantly alkaline and neutral and slightly acid towards the end. Specific gravity has always been deficient, oscillating between 1010 and 1012. It has constantly contained large quantities of albumen, and of casts in different stages. This has shown that the kidneys were in a diseased condition, very likely in the form of parenchymatous nephritis. We will not discuss the origin of the nephritis, we will only say that the secondary elements, which ought to be eliminated from the kidneys in the urine, when retained, form enough poisonous substance to produce severe disturbances of the skin and of the general system. We lack the anatomo-pathological support, but from the condition of the urine it is easy to infer that the kidneys were severely affected. In many autopsies of those who have died of pemphigus, there have been found alterations of the kidneys, which cannot be considered as a simple coincidence. The marrow of the bones, according to Pelagatti,¹¹ has been found red and much harder than in the normal condition. In reference to the course of the disease, we can say that in our case it was rather an acute one; the first attack being in April and death occurring in October of the same year. In the other case which we had under our observation, the patient lived over two years, with periods of improvement and of relapses.

Neumann described one case of pemphigus vegetans, which he called acutus, having had a violent course like that of our present case. In other instances pemphigus vegetans has been found to have

¹⁰ Waelsch. Weitere Mittheilungen über einen Bacterienbefund bei Pemphigus Veg. *Arch. f. Derm. u. Syph.* Bd. 52.

¹¹ Pelagatti, M. Alterations de la moelle osseuse dans un cas de pemphigus. *Revue Prat.*, Mars, '905.

a tendency to chronicity, so much so that Kaposi¹² referred to a case which lasted ten years, beginning as an ordinary pemphigus and later on showing formation of vegetations.

The vegetations always occur at an advanced stage of the disease, and on the folds of the skin subject to maceration.

In our case the acute course of pemphigus consisted in the short intervals between the onsets of the eruptions, which are times of truce in the progress of the disease. These intervals in some cases have lasted long enough to give some hope for the better.

The observation of our case has confirmed us in the opinion of Kaposi that pemphigus vegetans is not different from an ordinary pemphigus, of which it is only a variety. We do not agree with the views of C. Muller,¹³ that pemphigus vegetans is a separate disease, for the reason that we have seen vegetating surfaces on the abdomen and in all the folds of the skin, and bullæ and vesicles crowded on the face, shoulders, legs, and feet.

The large abraded and excoriated surface of the body causes a great loss of albuminous substance with the oozing of the serum of the blood. The intensity of the disease progresses together with the increased loss of albumen. To this Stüve justly attributes the progressive denutrition. Some loss of albumen through the skin may be an explanation of the diminution of the quantity of albumen in the urine towards the last hours of our patient's life.

In both cases of pemphigus vegetans which we have had under observation, we have noted a ring of excoriated vesicles and blisters surrounding the vegetating masses. From the excoriated surfaces the secreted serum seems to have, or rather to attain, an irritating and probably infectious character. In consequence, either the irritating qualities of the secretion of the bullæ, combined with the perspiration, or the chemical alterations which these fluids undergo by the natural heat of the folds of the skin, we find sufficient factors to cause irritation of the uncovered papillæ, and the proliferation of their elements. Moreover, if we attribute the cause of pemphigus to a bacterial origin, we will see that the toxic elements resulting therefrom are a sufficient cause of the vegetations. In fact, vegetations have been found in cases of bullous iododerma, and also of other diseases where the papillæ have remained exposed to the action of irritating secretions.

¹² Kaposi. *Über den gegenwärtigen Stand der Lehre von Pemphigus.* *Arch. f. Derm. u. Syph.*, Bd. 34, p. 89. Bericht v. Karl Ullmann.

¹³ Muller, C. *Arch. f. Derm. u. Syph.*, Bd. xxxvi.

From the presence of the fever we are led to consider the disease of an infectious nature, which cannot be considered as arising from a local, but must come from a general systemic origin. The chart of the temperature in our case shows not only a fever from absorption of septic elements, but also an increase of temperature at the time of new eruptive crops.

Concerning the diagnostic peculiarities of pemphigus vegetans, we must refer to the fact that in the present case the bullæ preceding the vegetations were the same as those of the pemphigus vulgaris. They were distended, filled with a clear, transparent serum, and were not surrounded by any inflammatory halo. In the other case which occurred in our private practice, the lesions consisted only of small vesicles disposed close together, forming as it were a lace festoon, progressing at the edge of the affected parts. In this way the surface of eruption consisted of three areas: one, healed up, dark, pigmented, and granulating; a middle one, excoriated, oozing serum and bleeding; and at the edge another made up of vesicles of the size of a split pea, clustered together. This was also the case in a woman, fifty-eight years of age, who after a severe mental strain began to show the eruption of vesicles on her lips. Her death was caused by carcinoma of the liver. In this case, too, the only subjective symptoms were the pain from the excoriations and from the distension of vesicles, but no itching was present.

We find it of great interest to compare this case with another, which we have diagnosed as dermatitis herpetiformis, Duhring. Leredde¹⁴ tried to demonstrate that the lesions of the skin and the conditions of the blood in pyodermitis of Hallopeau, in dermatitis herpetiformis, Duhring, and in pemphigus vegetans, were identical. The point which Leredde mostly emphasized was the presence of the eosinophiles in the serum of the bullæ and in the blood of patients affected with Duhring's disease, pemphigus and erythema polymorphum.

From the results of our investigations of the blood, we have found no eosinophiles in pemphigus, while in dermatitis herpetiformis it is very marked. We¹⁵ must refer to a case of dermatitis herpetiformis in which we found eosinophiles from 29% to 44%. So far as the occurrence of the eosinophiles is concerned it shows that pemphigus and Duhring's diseases are separate and distinct entities.

It is not only the question of the eosinophiles which constitutes

¹⁴ Leredde. *Monatsh. f. Prakt. Derm.*, 1898. Bd. xxxvii, p. 381.

¹⁵ Ravogli. *Festschrift von Prof. Neumann*, 1900.

a difference between the two diseases, but these are plain and visible symptoms which differentiate pemphigus from dermatitis herpetiformis. These symptoms were well pointed out by Brocq¹⁶ at the International Congress for Dermatology and Syphilography in Paris in 1889. He summed them up in the polymorphism of the eruption, in the accompanying itching sensation, in the long standing of the disease due to successive attacks, and in the well maintained nutrition and general condition of the patient. These differential characteristics between the two diseases still hold good to-day, and but a glance at the illustrations (Plates XXVI. and XXVII.), will convince one of the difference between the two diseases.

In fact, in Duhring's disease what is so remarkable is the varying size of the vesicles, which are constantly seated on a red base and are mixed with papules or erythematous maculæ. Their disposition in groups and clusters recalls the herpes, and has a tendency to symmetry. The itching sensation, which increases at each renewed attack, prevents the patient from sleeping and from lying quietly. Mucous membranes are not so frequently and not so deeply affected, and the patient eats and maintains his nutrition.

The urine in Duhring's disease has been found constantly normal, the patients have never had fever, and the blood has always shown eosinophiles, which in our case amounted to 12.5%.

As to pemphigus, Neumann has always insisted on its slow course, on the gradual increase of the lesions, on the condition of the area covered by the bullæ, on the severe attacks of the mucous membranes, and on the progressive denutrition and dispirited and hopeless appearance of the patient.

In order to examine histologically the vegetating surface, a small piece of skin was removed from the upper part of the thigh; it was hardened first in a 2% formalin solution, then in alcohol. The sections were stained in hæmatoxylin, orcein, van Gieson and Leishman. The histological preparations, together with the photographic illustrations, were made by my assistant, G. H. Werk.

Plate XXVIII., Figs. 1, 2, object $\frac{3}{4}$, B. & L. The vegetating skin shows an increase of the epidermis in all its layers, dipping down between the papillæ in the form of appendages, as Luitheln¹⁷ has already described. The papillæ appear greatly proliferated, sponge-like, and with enlarged blood vessels. They are increased in

¹⁶ Brocq, L. Von den komplexen oder multiformen blasigen Dermatosen. ref. by L. Török. *Monatsh. f. Prakt. Derm.*, 1889, ix, p. 214.

¹⁷ Luitheln. *Arch. f. Derm. und Syph.*, Bd. xl.

size and in quantity, contain in their midst mast cells, and are infiltrated with small cells. The condition of the papillæ is not different from that which we have had occasion to observe in papillomatous productions from other origins.

Fig. 3, Object, $\frac{1}{6}$. The upper layers of the epidermis show a prevalent œdematous imbibition of the epithelial structure, and some leucocytes are also found between the cells. The spaces between cells are enlarged and the cells have absorbed so much fluid that their nuclei are scarcely susceptible of taking the stain. In the lower layers of the epidermis the nuclei are greatly enlarged as a consequence of the œdema.

In the basal layer of the epidermis at the edge of the derma there appears a great accumulation of pigment granules with some chromatophore bodies. These chromatophore bodies have been considered by Herxheimer, Leydig, Sigmund Mayer, Kromayer and others as the cells of Langerhans,¹⁸ which have absorbed some pigment.

The tissues of the derma show enlarged blood and lymph-vessels, together with a great accumulation of cells, while groups of plasma cells can be easily seen. The connective tissue fibers are enlarged, somewhat œdematous, and the connective tissue corpuscles enlarged show an active proliferating tendency.

The œdematous condition of the epidermis, the imbibition of the cells of the connective tissues, seems to be the result of congestion from an active hyperæmia. These alterations, however, are not characteristic of pemphigus vegetans, but have been found in a similar way in impetigo herpetiformis by Dumesnil,¹⁹ and in a case of multiple keloidal tumors by Herxheimer.²⁰

Fig. 4. The openings of the sweat glands and the glands themselves are greatly enlarged, and are lined with increased epidermis. The same condition of increased epidermis is found inside of the hair follicles.

Herxheimer and Weidenfeld refer the alterations of the blood vessels to an obliterating inflammation, a periangioitis.

The derma by means of the orcein stain according to Tänzer's method, shows the elastic fibers enlarged and swollen in the sub-papillary layer and around the glands, but in the lower layers of the

¹⁸ Langerhans. *Virch. Arch.*, Bd. 44, p. 325.

¹⁹ DuMesnil. Impetigo herpetiformis. *Arch. f. Derm. und Syph.* 1891, p. 723.

²⁰ Herxheimer. 1. c., p. 174.

derma have nearly disappeared. The collagenous tissues on the contrary, are greatly enlarged, and together with the cellular infiltration are the cause of the disappearance of the elastic fibers.

From the results of the histological examination the most striking feature in pemphigus vegetans is the enlarged condition of the blood and lymph vessels, from which the exudation takes place, causing œdema in the derma and in the epidermis. The proliferation of the anatomical elements of the derma and the infiltration is the cause of the disappearance of the elastic fibers. Riehl, Neumann and Herxheimer have thought the cause of the proliferation of the papillæ to be the exudation in the stroma of the derma, while Luitheln believes it to be the result of the imbibed and œdematous condition of the epidermic layers over the papillæ. Herxheimer and Weidenfeld²¹ had already noted the small proliferation of the papillæ from the time the bulla formed and for this reason they attribute the vegetations to the enlargement of the blood vessels and to the exudation.

The epidermic cells also take on a vegetating process, so that on the tip of the proliferated papillæ, thick epidermic layers are formed. The formation of the epidermis takes place very quickly, as has been observed in pemphigus foliaceus, by Kaposi and Kreibich. When the exudation detaches the epidermis to form the bulla, some epidermic elements remain on the papillary layer, and these are capable of soon reproducing epidermis. The epidermis, however, is thick, moist, and loose, and has not the physiological attributes of the normal epidermis.

As stated above, the enlarged and altered condition of the blood vessels has a great influence on the formation of the bullæ, we must see, however, in the process a functional disturbance of the trophic nerves. The presence of poisonous elements in the blood are the cause of affecting the vasomotor system. Moreover, some poisonous elements, as Eppinger²² had already maintained, brought to the skin by the circulation, have a detrimental influence on the blood vessels, which is the cause of consequent alterations.

The papillary vegetations, as already stated, find a great factor in the irritation produced by the fermentative alterations of the secretions, and by the presence of the perspiration, especially in the folds of the skin.

²¹ Weidenfeld. *Zur Histologie des Pemphigus vegetans. Arch. f. Derm. und Syphilis*, Bd. 67, p. 431.

²² Eppinger. *Grazer Derm. Kongress*, 1896. Quoted by Weidenfeld.

Therapy unfortunately is powerless. Arsenic, in its various combinations, and in the different ways of administration, failed to benefit our cases. The remedies must be given according to the symptoms. Externally the application of mild resorcin salve caused the falling off of nearly all vegetations and the healing of the surface. For the extensive excoriations we used dry dressings with boric acid, iodoform, sublimate gauze, but on account of the burning sensation, this could not be kept up long. Moist dressing, compresses, with mild solutions of subacetate of aluminum, phenol, bicarbonate of sodium, etc., could not be tolerated. Salves, from sterilized vaseline to boric acid, salicylic acid and zinc salve, did not do any good. A continuous bath with plain water relieved pain for a short time, but on account of the exceedingly weak condition of the patient, it was deemed necessary to desist. The insufficiency of the many therapeutic applications shows once more the gravity of this disease.

DISCUSSION

DR. JAMES C. WHITE asked Dr. Ravogli if he had made any mention of the presence or absence of micro-organisms in this affection.

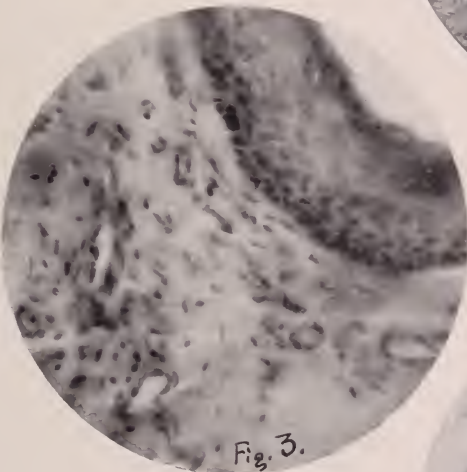
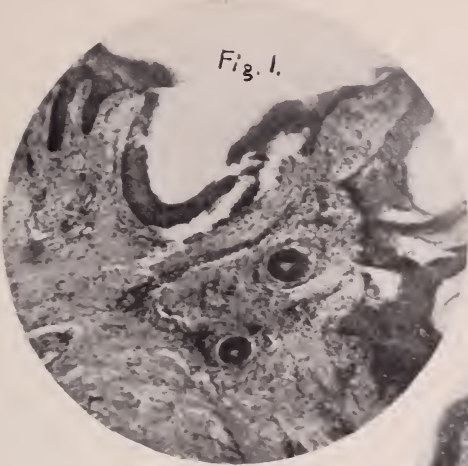
DR. M. B. HARTZELL said that in a case of pemphigus vegetans which he had had the opportunity to observe during the past year in the Philadelphia Hospital, he was particularly struck by the great disproportion between the extent of the cutaneous lesions and the patient's general condition. The case terminated fatally, although the skin lesions were comparatively insignificant, being limited to a number of bullae and vegetations in the axillae and groins, with a considerable amount of pigmentation. The patient died, without any very definite discoverable reason for the fatal outcome.

DR. RAVOGLI, in reply to Dr. White, said that inoculation experiments with the secretion gave negative results, nothing characteristic being obtained with the exception of the staphylococcus pyogenes albus and some sarcina. Some investigators had referred to the presence of diplococci, and a peculiar bacillus which closely resembled the diphtheria bacillus. Dr. Ravogli said this was not confirmed in his case. In connection with this subject, Stanzialé had made some interesting pathological researches.

PLATE XXV.—To Illustrate Dr. A. Ravogli's Article.







INTRAMUSCULAR INJECTIONS IN THE TREATMENT OF SYPHILIS AND THE USE OF THE SOZO- IODOLATE OF MERCURY.¹

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Dermatologist to the Emanuel Sisterhood Polyclinic, the Telegraph Hill Polyclinic, and Dermatologist and Syphilologist to the San Francisco Maternity.

(Concluded from page 269.)

THOUGH a unanimity of opinion does not yet exist in the treatment of this disease, the literature of to-day certainly advocates most favorably the treatment of syphilis by subcutaneous injections. There still exist a great diversity of opinion regarding the use of soluble or insoluble salts. This, in my opinion, will always exist until the practice of medicine becomes a fixed science. In my personal experience in the treatment of this disease, in the last twenty years, I have come to the conclusion that there is no routine treatment of syphilis; every case, in private practice particularly, must be treated from an individual standpoint. My preference and choice of treatment is by intramuscular injection with soluble salts, and my choice of these salts is the soziodolate of mercury.

It is probable that any salt of mercury will act, if it can be taken for a sufficient length of time, and yet we all know that no one salt of mercury will suit every individual case, and that there are phases of the subject little understood. Subcutaneously, intramuscularly, and intravenously, the following salts of mercury are being extensively used, according to a paper by Dr. Louis Wickman, of Paris:

| | | Per Cent. |
|-----------|-----------------------------|-------------------------|
| Inorganic | Calomel | Containing 84.9 Mercury |
| | Cyanide of Mercury..... | Containing 79 Mercury |
| | Bichloride of Mercury..... | Containing 73 Mercury |
| | Biniodide of Mercury..... | Containing 44 Mercury |
| Organic | Benzoate of Mercury..... | Containing 45 Mercury |
| | Soziodolate of Mercury..... | Containing 32 Mercury |

Of the organic salts of mercury, those that are insoluble, like calomel, are slowly absorbed, but are very painful; while the soluble

¹ A paper read by invitation before the Pierce County Medical Society, at Tacoma, Wash.

salts, though less painful, are absorbed more rapidly. The compounds of mercury with benzoic and substituted benzoic acids are found to possess the advantages without their accompanying disadvantages. Their use has been largely empiric and their action not well understood. The mercury is gradually absorbed, the injections are but slightly painful and as efficacious as those of calomel. An objection to their general use has been their apparently capricious action. This is due to the difficulty of always getting the same preparation. At one time a mixture is clear and acts splendidly, again, prepared by the same druggist from the same ingredients, it is cloudy or even flocculent and painful to the patient. If filtered, part or all of the mercury may be lost. In the light of recent investigations (see Pesci, *Chemisches Centralblatt*, 1900, p. 1097, 1901, p. 108; Dimroth, *Pharm-Zeit*, 1901, No. 3) this behavior is easily explained. The chemistry of these mercury compounds is rather complicated. They are not simply salts of mercury with complex acids, but the mercury enters the benzene ring, giving rise to very stable substances, mostly insoluble in the salt solvent. By proper manipulation these compounds may be kept in solution, and it is probable that their slow action and absorption is only attained after the molecular rearrangement. Such solutions are very valuable in the treatment of syphilis, and the dosage can be made much more accurate than with insoluble salts.

The simplest of the compounds is that of mercury and benzoic acid (C_6H_5COOH). Then comes that derived from salicylic acid [$C_6H_4(OH)COOH$], but a little more complicated. Then we have the salts of phenolsulphonic acid ($C_6H_5SO_3H$), with its derivatives. The paraphenolsulphonate and the amidoparaphenolsulphonate have been extensively used in France. I have obtained the best results with the sozoiodolate, chemically the salt of Di-iod-paraphenol-sulphonic acid [$C_6H_2(I)_2(OH)(SO_3H)$]. A discussion of the constitution of this salt would be in place were this a meeting of chemists, but would take most of us beyond our depths. A glance at the table of percentages will show that the sozoiodolate contains the smallest percentage of mercury, and yet it was proved so much better than the others in my practice that I am inclined to attribute part of the action to the iodine that it contains. The objection may be urged that a small quantity of iodine in each dose can have little therapeutic value. The usual daily dose contains about one-eighth of a grain of iodine in the mercury sozoiodolate, and less than half a grain in the iodid of sodium, and this is generally negligible com-

pared with the doses given subcutaneously in some of the organic preparations, like cypridol or iodopin. However, we have something similar in the administration of mercury by mouth. We have all seen cases in which an iodide of mercury acts properly where a chloride fails, and yet the amount of iodine is trifling. Combined with mercury, we get results that we cannot get from much larger doses of either given separately. When this problem is solved we shall know why the soziodolate is so efficacious and why the iodine is so necessary. Until then we must take facts as we find them. Soziodolate of mercury being a compound, which decomposes in the economy, precipitating albuminoids, its use is slightly painful; but the pain is easily borne, even by the most nervous patients. Injections of soziodolate of mercury are not original with me. The Crocker-Schwimmer formula is well known to all syphilologists. This formula has not always yielded identical preparations, for the reasons already stated. Having had more or less difficulty with it myself, I submitted the problem to my chemist, Dr. Felix Lengfeld, who has succeeded in solving it to my perfect satisfaction. He prepared a solution containing one per cent. of mercury soziodolate that was perfectly stable and could be sterilized and kept indefinitely in sealed tubes. This solution seemed a little weak for some purposes, requiring, as it did, about twenty-five minims to be injected at the dose. I have therefore had him make a somewhat stronger solution, with an average dose of twenty minims, which can be gradually increased. The modified solution contains one-half per cent. of mercury in the form of soziodolate, so that the clinician can tell just how much mercury he is giving his patient, each twenty minims containing just one-tenth of a grain of mercury. This solution contains nothing but soziodolate of mercury and sodium iodide and can be prepared by anybody with the necessary chemical training who will take the time to investigate the subject. I must insist, however, that it be properly prepared, and that it is not fair to judge results from improperly prepared solutions.

In illustration of the successful use of this salt, permit me to present the following cases from my own private practice and that of some of my confreres in San Francisco.

CASE 1 (Secondary). From Dr. Alanson Weeks, U. S. P. H. and M. H. Service:

"Patient, A. B., mariner, aged twenty-four. Appeared at this clinic on July 25, 1905, suffering with hard and soft chancre and gonorrhœa.

Local treatments were furnished him for these conditions. On August 6th he was found to be covered well over the body with a macular syphiloderma and with mucous patches in the mouth. I started on this day with the intramuscular injection of the sozoiodolate of mercury, giving twenty-five minims of the solution every day, and on the 19th the lesions on the body were nearly all faded and on the 21st had disappeared and the mouth healed. I kept these injections up for four weeks, every day, and then placed the patient on pills, protoiodide of mercury. There were no accidents of local abscess or pytalism and the patient continued his work. This serves as a sample of some twenty cases I have treated in my service lately with your modified solution of sozoiodolate of mercury, and am glad to bear evidence to the value of this salt you have introduced here."

From Dr. A. F. Sampson:

"CASE 1. Mr. G., aged twenty-eight, contracted syphilis in the City of Mexico twenty months prior to consulting me on July 6, 1904. His greatest anxiety was caused by a pronounced periosteal node over the external supraorbital ridge and a growth of similar character on the right olecranon process. Said he had been under treatment for syphilis for the past eighteen months and taken many mercurial inunctions. I put him on Dr. Garceau's solution, sozoiodolate of mercury, giving him twenty-five minim doses every day for a week, and then every second day for the following week. Within three weeks there was a most satisfactory condition, the nodes having entirely disappeared.

"CASE 2. An acute form of syphilitic periostitis. Mr. V. M., aged thirty, diagnosed and confirmed by two consultations as syphilitic periostitis. I used in this case sozoiodolate of mercury alone. After the third injection pains were completely relieved. After one week's daily treatment there was no evidence at all of the periostitis."

From Dr. William C. Voorsanger:

"Enclosed you will find reports of a series of cases treated by injection of sozoiodolate of mercury as formulated and recommended by you. I used this preparation exclusively for intramuscular injections and find it especially efficacious for the treatment of late effects of syphilis, such as gummata, ulcerations, and neuritis. My cases thus far have all gotten along beautifully, their condition improving, the general health becoming better, and the injections causing practically no pain. Hoping that your preparation of the sozoiodolate of mercury will very soon be generally adopted by the medical fraternity."

CASE 1. C. M., married. Aged 28. January 8, 1905. Diagnosis, multiple gummata of tibia. Six years ago had sore on penis which was pronounced soft chancre. Cauterized and cured. No eruption on body. No throat trouble found. Three years ago, struck right leg over shin-

bone [on bedstead], which left a large ulcer, slow in healing. Two months ago, on right leg just below knee, large swelling appeared, followed by another some time later over shin-bone about center of leg. These became inflamed and broke down and left a large, deep ulcer, which patient has been trying to cure himself. Family history O. K. Personal history has otherwise always been healthy. P. E.—just below right tibial condyle deep ulcer well circumscribed about the size of a twenty-five-cent piece, over center of shin-bone. One about the size of a dollar piece, also well circumscribed and emitting a very foul odor. The appearance of the other two ulcers leaves no doubt as to the diagnosis of lues. No glandular enlargement, no other eruption on skin.

Treatment: K. I. sat. solution grains 10 t.i.d., increasing doses until grains 50 were taken t.i.d. Intramuscular injection of sozoidolate of mercury (Garceau formula) every other day. Hg. salve. February 4th, upper ulcer nearly healed, lower one healing rapidly. Is taking drops 45 of K. I. In this particular case twenty-five injections were given. Marked improvement was noticed after tenth injection. Complete disappearance of ulcers and restitution of tissue at end of treatment.

CASE 2. Peripheral syphilitic neuritis. Principally of cervical plexus. Man, aged 27. Received thirty injections, fifteen first, then interval of six months, then the second fifteen. Perfect cure.

CASE 3. Peripheral syphilitic neuritis. Man, aged 30. All over body, especially in legs. Fifteen injections; cured.

CASE 4. Hereditary syphilis in man of twenty-three. Swelling of glands of neck and malaise for past year. Had lost about fifteen pounds. Combined injections with K. I. fifteen drops t.i.d.; after tenth treatment felt much better. Gained ten pounds.

I am indebted to Dr. Langley Porter, of San Francisco, for the following interesting case of hereditary syphilis treated with the Lengfeld solution:

"Baby M. The child was put under treatment originally for gonorrhœal ophthalmia and was discharged cured when three weeks of age. In its sixth week mother returned, the child was covered with a characteristic maculo-papular rash of congenital syphilis. It had marked snuffles and the hoarse laryngeal cry. The mouth corners and lips were literally covered with fissures. The child weighed nine pounds, having weighed seven at birth. Another physician had seen the child and ordered the mother to stop nursing and had given a fatal prognosis. The mother was ordered to continue the breast-feeding. The lip fissures were treated with two per cent. chromic acid. The child was put on grey powder, grains one-half, with Dover's one-eighth, every three hours. Three days later the mother returned, complaining that the child had colic and cried all the time. No improvement in condition. The weight, eight and three-fourth pounds; loss, four ounces. Three days later, no improvement.

Patient put on injections of soziodolate of mercury (Garceau) minims seven. Daily injections into buttock. Chronic acid to lips. After second injection rash gone. Weight $8\frac{3}{4}$ pounds. After fourth injection snuffles nearly gone. Weight barely nine pounds. No pain, except after injection. Cries until next bottle and then is comfortable. Lips much improved. After the second injection dose increased until the sixth equaled *m* xii. Weight, nine and one-fourth pounds. Lips almost well. Child looks well. Injections alternate days. In subsequent week all symptoms disappeared. Minims twelve, twice a week for four weeks, no sign of any recurrence. Steady advance in weight and well-being. Injections at end of this time ordered. Minims fifteen once a week. Child at present is four and one-fourth months old, weight, fourteen and one-half pounds. Has no sign of lues and is to all appearances a perfectly healthy child, fat, and in good condition."

Comment: The advantages of the injection were shown to be: rapidity and thoroughness of action. No disturbance of appetite and digestion. No injury to skin, and certainty of dosage. The pain from injection is less enduring and annoying than colic.

I will now submit a few cases of primary, secondary, and tertiary syphilis treated in my own practice with soziodolate of mercury.

CASE 1. J. E. T., January 28th. Aged twenty-three years. Consulted me on January 28, 1904, with the following symptoms: Had a hard sore in December, 1903. Has been covered with a secondary syphiloderm for the last six weeks. Has been taking biniodide of mercury, grains one-eighth, during that time without appreciable benefit. Was given thirty minims soziodolate solution every day. Complete disappearance of syphiloderm at the end of eight days. Continued the same treatment for an indefinite time.

CASE 2. Mrs. B. E., aged twenty. Married three years. No children. Miscarried twice. Consulted me on March 23, 1905, for an alopecia. On careful examination found mucous patches in the mouth and throat. Cervical, inguinal and hypertrochlear glands enlarged. She had no knowledge that she was suffering from lues. Had been under treatment for throat trouble for two months. After thirty injections of soziodolate complete disappearance of all symptoms. Is now, and has been since, under routine treatment.

CASE 3. C. R. S., aged forty-four. Consulted me November 7, 1904. Had syphilis fifteen years ago and was treated for the same for three years. No further manifestations until the present time. Now has a syphiloderm covering the whole right side, from top of the head to the outer malleolus of left foot. Reflexes normal and no nervous manifestations. Complete disappearance of cutaneous lesions after fifteen injections.

CASE 4. W. C., aged thirty. Single. Three months ago developed a small sore on the glans penis which disappeared in ten or twelve days without treatment. Six weeks later there appeared a secondary eruption over the abdomen, thorax, and back, in axilla and flexors of arms, which is very perceptible now. Mucous membrane of mouth and throat very red. A few mucous papules on each inner cheek, complete adenites. Disappearance of cutaneous lesions after twelve injections and disappearance of all symptoms after the end of two months, when he was placed under routine treatment.

CASE 5. W. T. V., aged forty-four; single. When eighteen years of age had syphilis and was treated vigorously for same for four years. From time to time has taken treatment of either iodide of potassium or mercury. Has now what appears to be multiple gummata of glans penis. After thirty injections complete disappearance of sores with good cicatricial tissues. Was given a routine treatment. Returned three months after with recurrence of former condition, which failed to respond to any treatment, though he was given fifty injections of sozoiodolate of mercury. A biopsy revealed carcinoma. Amputation of glans was made recently. Further histological examination revealed the diagnosis of malignancy.

CASE 6. Miss T. M., aged thirty-nine. Consulted me on October 5, 1905. Occupation, masseuse. Had hard sore on upper phalanx of left thumb. Said that sore had been there for four weeks. She was well covered with a secondary roseola. Enlargement of glands, throat red, but no mucous patches. Disappearance of rash and sore after sixth injection. Injections continued for six weeks. Complete disappearance of all manifestations. Is now taking routine treatment.

CASE 7—Mrs. L. G., age 28. Consulted me on March 18, 1904. Large hard sore on the tip of the tongue. Manifested itself five days ago. Right submaxillary gland hard, large and tense. Cervical glands well enlarged. Adenitis in right hypertrochlear. No cutaneous manifestations or throat symptoms. Complete disappearance of sores after 18 injections and subsidence of glandular symptoms after three months treatment. Was given routine treatment and is still taking it and apparently in perfect health.

All of these cases, and many others, from my own records, gained in weight with marked increase in health. The method which I employed in giving these injections, after the so-called routine treatment, is as follows: In primary and secondary cases I give twenty to thirty minims of the Lengfeld solution until complete disappearance of all manifestations, or until I perceive symptoms of mercurialization. I continue this treatment every third or fourth day until the expiration of two months. I then begin by giving mild

mercurial medication, say one-eighth of a grain of protoiodide, cum opii, twice a day for an interval of two months. I find that my patients are never disturbed by this internal medication after having taken mercury by injection. Further treatment is carried on by the demands of the individual cases.

There are many manifestations of syphilis: headache, osteopathic pains, ulcerations, gummata, and visceral disturbances, etc., which require iodide of potassium, tonics, etc., which I employ with or without the use of injections. In conclusion, I will repeat that I prefer the use of a soluble salt, particularly the sozoiodolate. Though inconvenient, from the necessity of frequent injections, they are the best absorbed and best tolerated and there remains no danger of leaving any mercury in the tissues for further trouble. They are less painful than the insoluble salts and they keep your patient, during the most acute stage, almost daily under your personal supervision. The technique which I employ is as follows: A site is chosen on the buttock at a point about midway from the trochanter of the femur to the sacral prominence. This spot is cleansed carefully by swabbing with ether and a sufficient time is allowed for evaporation, which produces a mild anæsthesia. The syringe is filled with the solution, then a trochar-needle is quickly plunged into the gluteus muscle. The trochar is removed and, if there is no oozing from the wound, the barrel is attached to the needle and the solution slowly introduced. The point of insertion is then covered with absorbent cotton and vigorous massage maintained for a few minutes. This massage is to obviate any danger of nodulation and relieves the pain of injection materially. The prick point can be then covered with collodion. The needle and syringe should be, of course, well sterilized before and after using. Since I have been using intramuscular injection I have never had an abscess, deep nodulation or any accident whatever and have never received any complaint from my patients. Furthermore I find that my private cases are better satisfied by the injection method than by the old routine treatment of the past.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

340th Regular Meeting, March 27, 1906.

Dr. GEORGE H. FOX, President.

Urticaria Pigmentosa, A Case of. Presented by Dr. MEWBORN.

The patient, a native of Sicily, laborer, forty-eight years old, is held at Ellis Island, pending a decision as to his right to be admitted to the U. S. Through the courtesy of Surgeon G. W. Stoner, U. S. P. H. and M. H. Service, I have the privilege of presenting him to you. The patient is a muscular and healthy man, the father of five healthy children, all living and in good health. Family and personal history good. No venereal history. His present trouble began twelve years ago as an eruption of dark red spots which have not changed materially during this time. There is no itching, burning or other subjective symptoms.

Status præsens. The entire cutaneous surface is thickly covered with a disseminated, non-elevated, dark reddish brown eruption which fades but does not disappear under pressure. The lesions are round and oval, following the lines of cleavage, thickly studded on the back, buttocks, extensor and flexor surfaces of upper and lower extremities. The scalp, face, palms and soles are free. Mucous membranes are free. No glandular enlargement or other abnormalities found on a physical examination. If a wooden spatula or other substance is rubbed over the skin, the surface quickly becomes red with a change of the pigmented spots into elevated urticarial wheals. These wheals, of a brilliant cardinal red, slowly subside into their former state of dark red pigmented patches. There are no signs of hæmorrhage, scaling or vascular dilations. There are no signs of atrophy or wrinkling of the skin over the patches. A biopsy will be made and sections will be stained for mast-cells.

Nobl in an article under the title of "Urticaria Xanthelasmaidea, (*Archiv f. Dermat. u. Syph.*, 1905, lxxv, p. 73), analyzed one hundred cases reported, and by insisting upon the three diagnostic points of permanent pigmented patches, which must have begun in childhood, and that lesions must show mast-cells in the derma, excluded all but five to which he adds a sixth case as true urticaria xanthelasmaidea. While the statement of the patient, in the case here shown, cannot be strictly relied upon, we are unwilling to exclude this case because the disease did not

begin in childhood. The histological findings will be reported upon later.

All the members present concurred in the diagnosis.

Dr. ELLIOT referred to a case in a man thirty years old, which he had shown before the Society a number of years ago. Another case had been shown by Dr. Morrow. Dr. Elliot was also unwilling to accept Nobl's criterion of beginning in childhood.

Epithelioma of Outer Canthus. (Case previously shown.) Presented by Dr. ALLEN.

This case was again presented to show improvement under X-ray treatment. The ulcerated surface had diminished in size and edges had begun to show cicatrization.

Lupus Disseminatus of the Forehead. (Case previously shown.) Presented by Dr. ALLEN.

Dr. Allen wished to allow the members to see the marked benefit the patient had received from X-ray treatment. The forehead had become almost perfectly smooth with only a few scattered red spots to mark the site of former lesions.

Raynaud's Disease in a Syphilitic. (Case previously shown.) Presented by Dr. LUSTGARTEN.

Dr. Lustgarten had submitted the patient to the hypodermic administration of sublimate solution and the finger tips were now rapidly healing.

Dr. ELLIOT recalled a case in a young girl, nineteen years of age, affected with a marked syncope in the ring finger of the left hand. The finger was white, bloodless, numb and without sensation. A peculiar circumstance in the family history was that every member of her family for three generations were affected by the same tendency to local asphyxia in the same finger on exposure to cold. In each case it was the ring finger of the left hand. The condition was always brought on by exposure to cold and disappeared on entrance into a warm room.

Dr. JACKSON said that he had recently seen a case of Raynaud's disease in a woman. The local asphyxia was present in the first two fingers of both hands and had been present off and on for six or seven years. In his case the affection was only present in cold weather and cleared up in warm weather. When she came into the clinic from the street the fingers were cadaveric, white and cold. It was difficult to find the radial pulse as in the case under discussion.

Acne Necrotica, A Case of. Presented by Dr. Fox.

Patient is a machinist, twenty-three years old, an American. The eruption began fourteen months ago. Practically no subjective symptoms. He has been free from lesions at times, but the pigmentation remains and it is principally for the latter that he seeks treatment. The lesions are scattered about the face, trunk and extremities. The lesions on the face

resemble those of *impetigo contagiosa*. There is slight scarring left by some of the lesions. While a physical examination gives no signs of tuberculosis, his heart is enormously dilated and hypertrophied. Action very irregular and lesions of aortic and mitral valves are present.

Dr JACKSON said that he considered the case as a tuberculide of the skin.

Dr. WHITEHOUSE thought the absence of itching and the clinical appearance of the lesions would justify the diagnosis of folliculitis or acnitis.

Drs. ELLIOT and ALLEN agreed in the above opinion.

Dr. LUSTGARTEN thought that the lesions answered the general description of an acnitis.

Dr. KLOTZ thought the grave organic lesions of the heart, while not actually excluding, made tuberculosis at least not probable.

Dr. Fox added that the case seemed more like a pustular scrofulide.

Naevus Pilosus, A Case of. Presented by Dr. Fox.

Girl, seven years old. presents on the right parietal region, extending to left parietal and occipital regions, an area about six inches in length covered with a sparse downy growth of hair. Corresponding to this area is a tough fibrous mass beneath the skin, raised above the surrounding scalp, and moveable upon the cranium. The surrounding scalp is covered by a normal growth of hair. The condition is congenital.

Dr Fox said that while he had used the term *naevus pilosus*, it was really conspicuous in the scalp because it was denuded of hair to a great extent. The small pigmented spots, the congenital warty projections, the imperfectly developed hairs and the fibrous thickening of the skin, preventing a full growth of hair, rendered the diagnosis about the only one to be applied.

Xeroderma Pigmentosum, A Case of. Presented by Dr. Fox.

Patient is a sailor, twenty-three years old, a native of New Brunswick. His brother has suffered from a similar condition, though to a lesser degree for the past two years. Patient has had freckles since birth, although he is less freckled now than when a boy. Twelve years ago a growth the size of a copper cent was removed by an operation. Two years later a second similar growth was removed, and recently at the Skin and Cancer Hospital, a large growth (carcinomatous) was removed from the lower lip. For the past ten years he has had the atrophic spots and telangiectases typical of *xeroderma pigmentosa*. A number of small warty growths have been removed from time to time by curetting and caustics. The body is free from lesions, the general health is good.

Dr. JACKSON said there was no question as to the diagnosis.

Dr. KLOTZ stated that he had seen this patient several weeks ago before the epithelioma was removed, and that the symptoms had then been more pronounced. In this connection it was interesting to note that this patient was a seaman by occupation, and he thought it remarkable that with so much exposure to light the disease had not made more progress.

A Case for Diagnosis. Presented by Dr. Fox.

The patient is an Italian, twenty-eight old, fireman by occupation. The eruption began six years ago simultaneously on both legs. In three years attained its present size. At first he complained of severe pains, but has had no pain for the past two years, aside from a slight burning sensation at times. There is no itching. Patches are firm, elevated, mostly smooth, of a dull brownish black color. Pigmentation has developed during the past three years.

Dr. JACKSON made the diagnosis of multiple idiopathic pigment sarcoma of Kaposi type.

Dr. WHITEHOUSE said that a week ago he had seen the case when there was secondary infection with small ulcerations, but there were lesions on the side of the instep, resembling very much those of lichen planus. These together with the bluish color, infiltration and verrucous character of the surface of the patch had led him to make the diagnosis of hypertrophic lichen planus.

Dr. Fox in closing, said that a few weeks ago the patches were much more congested, infected in places. There were ulcers on the calves, but nothing to suggest syphilis.

Psoriasis Associated With Leukoderma, Treated by X-ray. Presented by Dr. ALLEN.

The patient was a well-nourished man, thirty-two years old. The psoriasis was first noticed twelve years ago as scattered spots on the scalp, chest, back, groin, scrotum, perineal region and anal fold; a few spots on the extremities. About six years ago he noticed a leukoderma gradually developing upon the face. The parts affected were eyelids, chin and neck. Hands also affected. Under X-ray treatment the psoriasis gradually yielded, the scalp cleared up under four applications. The spots in the inguinal perineal and gluteal region all disappeared leaving leucodermatous areas in the site of psoriasis patches.

Dr. MEWBORN said that in view of the known dangers of X-raying the testicles, he did not think we were justified in using such a powerful agent as the ray in psoriasis of the genitals when other agents at our disposal would produce equally good results. The case of psoriasis which Dr. Mewborn had presented before the Society December, 1903, had been treated by a radiographer in Maine. The psoriasis had temporarily cleared up only to return in two weeks with marked severity, more disseminated and in larger patches than ever before, as was shown when the case was again presented in February, 1904, and moreover, the azoospermia which followed has remained a permanent condition. This danger to the testicles had been strongly emphasized by Dr. Mewborn at that time, reasoning from the experiments of Albers-Schoenburg on guinea pigs. This was a year before Dr. Tilton Brown first published cases of X-ray sterility.

Dr. ALLEN stated that it was always with the consent of the patient after the dangers of using the ray had been plainly stated to the patient. In this case all the ordinary means had failed to cure. In his experience the result was much more permanent than that following the use of chrysarobin. In one case of obstinate psoriasis of the scalp the condition was better after one week.

Dr. PIFFARD said that there was a moral question involved, *i. e.*, we had no right to expose the patient to the danger of sterilization.

Dr. ELLIOT said there was not only the danger of killing the spermatozoa, but of causing a permanent atrophy of the testicles.

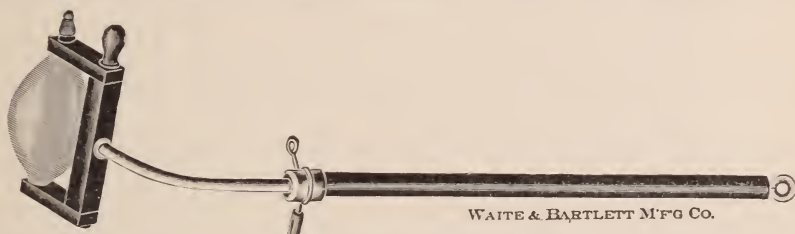
Dr. Fox did not consider the results in psoriasis from using the X-ray could be compared with the rapid and favorable result of chrysarobin used properly. When the patient's skin was not previously inflamed, a reliable chrysarobin would give a quicker and better result than the X-ray.

Dr. PIFFARD said that the first chrysarobin used in America had been prepared by him at the University of New York.

Dr. Fox said that the original chrysarobin was much stronger than that sold at present. The old chrysarobin unless carefully used, excited a most intense dermatitis.

A Vacuum Rolling Rheophore. Presented by Dr. PIFFARD.

This instrument consists of a freely rotating oval vacuum bulb, mounted with a handle for administering the high frequency current and



by its ease of rotation, obviated the tendency to stick to the skin found with the ordinary rheophores.

An Aluminum Capsule With Vulcanized Covering and Platinum Terminal for Holding Radium. Presented by Dr. PIFFARD.

When radium is confined in a glass tube it undergoes disintegration. The first product is the evolution of helium and the development of a positive charge of electricity which increases until the electric charge becomes too great for the tube to stand and a puncture or an explosion occurs. He had called attention to this danger in a recent paper and had mentioned several cases where the glass container had been punctured. He had found that a small piece of platinum wire projecting into the tube would prevent this accumulation of potential, as every time the platinum was touched, it grounded the charge and carried off the electricity. A friend of his who kept four or five thousand dollars' worth of radium in a glass tube, was advised to prevent this accident with platinum as indicated. His advice was disregarded and an explosion occurred, scattering the radium all over a rug from which, fortunately, it was recovered with small loss. If radium is placed in an aluminum tube instead of glass, the electric potential does not increase because every time it is touched the electric charge escapes. But aluminum has the disadvantage of being acted upon by the animal fluids when inserted in a moist growth and becomes disintegrated. The container shown has a thin vulcanized rubber covering to protect the aluminum tube. This tube was tested at twelve

inches from an electroscope. Without the vulcanized rubber coating there was a fall of 1000 volts in 23 to 25 seconds. In the coated tube there was a fall of potential of 1000 volts in 31 to 32 seconds, showing an approximate diminution of activity of 20 per cent., thus requiring about one-fifth longer exposure to produce the same results with no danger of losing the radium.

Exhibition of X-ray Photographs. Presented by Dr. PIFFARD.

Dr. Piffard exhibited two radiographs, one of which was taken with view to the exclusion, so far as possible, of the secondary rays, and the other showing a maximum action of these rays. The difference between the two radiographs was very striking and raised the question as to which class of rays was most efficient therapeutically. Personally he had for a long time doubted whether the X-ray proper, the so-called primary or direct ray, had much, if any, biological action. The X-ray cannot be reflected, refracted, deflected or polarized. It will affect a photographic plate and ionize the air. The secondary rays also affect a photographic plate and ionize the air, but they can be reflected and polarized and are usually accompanied with cathode rays which can be deflected. The difference in their physical behavior certainly suggests a difference in their biological action. So far as he is aware, radiotherapeutists have paid little attention to this point, although it is one which every expert radiographer has in mind, his aim being to exclude the secondary. It is just these secondary rays Piffard believes that are most useful therapeutically.

A Simple Method of Taking Impressions of the Sole of the Foot to Show Changes in the Foot Arches. Presented by Dr. PIFFARD.

Several impressions of normal sole prints and flat foot prints were shown. A piece of paper is coated with a five per cent. solution of yellow prussiate of potash and allowed to dry. The foot sole to be taken is coated with a diluted solution of the muriate tincture of iron. The patient then stands upon the paper and a blue print develops, showing all the lines and details of surface which comes in contact with the floor. This process did not originate with him.

A. D. MEWBORN, *Secretary.*

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held Tuesday evening, March 20, 1906, at 8:30 o'clock in the Amphitheater of Polyclinic Hospital, 18th and Lombard Streets, Dr. M. B. Hartzell, in the chair.

A Case of Blastomycosis (?) was shown by Dr. Hartzell. The patient was a woman, fifty-five years of age, and gave a positive history

of the affection having lasted but three weeks, and of it having appeared suddenly. The patient's occupation consisted only of the work incident to housekeeping. The affection was situated on the backs of both hands. The diseased area was hypertrophic and vegetative in appearance, with numerous small openings on the surface, marking the sites of miliary abscesses. The border was sharply circumscribed, elevated, and somewhat violaceous in color. A preliminary microscopic examination had been negative. Culture tubes had been inoculated, but sufficient time had not elapsed as yet, to allow maturation of the culture. The possibility of a deep-seated trichophytosis had also been entertained in connection with this case.

A Case of Pityriasis Rubra Pilaris was also exhibited by Dr. Hartzell. The patient was an imbecile girl, three years of age, and had had the condition since birth. It was more or less generalized; the involvement of the head, face, and arms being especially well marked. The eyelashes were absent. There was shrinkage of the skin of the face. The follicular involvement was most marked on the backs of the hands. A very mild sedative application had been used to remove the crusting of the scalp. Dessicated thyroid had been given in half-grain doses, three times daily, with improvement. A brother of the patient, twenty months old, was also affected with the condition. A point was raised in the discussion as to whether Pityriasis Rubra of Hebra should not be considered in connection with these cases.

A Case of Dermatitis Factitia was presented by Dr. Tinney, by courtesy of Dr. Stelwagon. The patient was a rather young married female. According to her statement she had had five attacks, most of which had occurred in the fall season. The last attack had been of two weeks' duration. The affection was situated on the face, forearms, and legs. Pain and burning were present but no itching. There was a history of bleb formation. There were numerous scars of the areas said to have been involved. The lesions of the present attack were largely linear excoriations. Involution of previous attack had been hastened by the internal administration of intestinal antiseptics. Dr. Stelwagon seemed to entertain the possibility of an aberrant type of erythema muliforme in this case.

A Case for Diagnosis was brought before the Society by Dr. Stelwagon. The patient was a middle-aged man who, after returning from a summer sojourn in the woods, had noticed an eruption of pin-head to pea-sized, deep-seated vesicles and vesicopustules on both palms. The feet were free. These lesions manifested a decided tendency to appear in crops and often coalesced. The affection had lasted three months. In the region of the thumbs there had been five crops, and it was decidedly

eczematous. The patient complained of burning and pain. Many suggestions as to the possible nature of the condition were advanced by the various members, but none was considered seriously. The condition looked not unlike pompholyx.

A Case of Elephantiasis was exhibited by Dr. H. Shoemaker, by courtesy of Dr. Stelwagon. The patient was a middle-aged woman, who gave a history of having fractured her left leg seven years previously, ever since which accident the leg had continued to enlarge. There had been recurrent attacks of inflammation in the past. At this time the affected part was markedly enlarged and an area five inches long and enveloping the lower part of the leg was covered with papillomatous formation. The X-ray had been employed for its therapeutic effect with improvement. There had been fourteen exposures of ten minutes duration with a medium tube at eight inches distance. A section of the affected area had been submitted to microscopic examination and showed typical structural changes.

A Case of Peculiar Brownish Discoloration of the Hands, Legs, Face, and Back of the Neck, was shown by Dr. C. N. Davis. The patient was an American, forty-seven years of age, and a huckster by trade. The skin over the regions mentioned was very dark brown in color, unduly thickened and hardened, and dry and scaly. His face seemed to be slate-colored. A careful examination of the patient showed him to be quite a medical curiosity. On the dorsum of the left foot there was a swelling, which the Society had no hesitancy in conceding was a gumma. A like unanimity of opinion was manifested as regards a Dupuytren's contraction of the palmar aponeurosis of the right hand. Vitiligo was also found to be present on certain parts of the hyperpigmented areas. The condition for which the patient was brought to the Society had lasted four years. In the opinion of the Society, it was in all likelihood dependent upon lues.

A Case of Pityriasis Rosea presenting unusual features was brought before the Society by Dr. Sehamberg. The earliest lesion had appeared over the site of a vaccination mark on the arm and presented every evidence of psoriasis. Previous to the outbreak of the eruption on the trunk, the patient had been the subject of rather profound constitutional disturbance. Headache, vomiting, thirst, and presumably fever had been present. The eruption had been out for three days when the patient was shown and was bright red in color.

A Case of Erythema Multiforme Bullosum was exhibited by Dr. C. N. Davis. The patient was an Italian who had been in this country nine

months. The history was extremely interesting. An abscess of the lower jaw had been opened some days previously and packed with iodoform gauze, whereupon an iodoform dermatitis was produced upon the face and neck. During the last six days, while the patient was yet confined to the hospital, markedly inflammatory papules, vesicles, and blebs appeared on the extensor surface of the forearms, dorsum of the feet, and the back. A diagnosis of erythema multiforme was then made. The influence of the iodoform, externally or by absorption was discussed but discarded as an etiologic factor.

A Case of Generalized Eczema With Enlarged Inguinal Glands was presented by Dr. Schamberg. The eczema had lasted nine months. The patient, a rather elderly man, stated that the enlargements in the inguinal region had existed long before the appearance of the eczema.

A Case of Verruca Planum Juvenilis occurring in a colored boy, about fourteen years of age, was shown by Dr. Stelwagon. The disease was situated upon the face, and hands, and had existed several months. The lesions consisted of flat, irregular, more or less linearly arranged papules and resembled somewhat closely the lesions of lichen planus.

A Case of Extragenital Chancre of the Lower Lip was presented by Dr. Schamberg. The lesion had involved an unusually extensive area of the lip, but was accompanied by a small amount of glandular enlargement. A roseola was present but is now disappearing. The patient had had uncommon opportunities for the diagnosis and care of his case, having been previously observed by three of the members in the service of Dr. Hartzell at the university, and having been made the subject of a special paper by Dr. Knowles.

A Case of Small Papular Syphiloderm was also exhibited by Dr. Schamberg. The eruption had been markedly follicular in this case and was diffused over the body and extremities. The interesting feature was the enormous enlargement of the cervical glands which had been diagnosed as tuberculosis and treated surgically. The possibility of the coexistence of these affections in this case was earnestly discussed.

A Case of Syphilitic Leukoderma occurring in a colored woman was shown by Dr. Pfahler. The affection had lasted about three or four months and consisted of a mottled condition of the face and forearms. She gave a history of having had an eczematous eruption several months previously. There was also a lichen pilaris of the right leg and a Bell's palsy of two weeks' duration.

A Case of Erythema Scarlatinoides was brought before the Society by Dr. Stout. The patient was a young girl and gave a history of having had four attacks. She usually had some constitutional reaction prior to each attack. The last attack had involved the hands and face. Desquamation had just been completed.

Two Cases of Syphilis of Unusual Interest were shown by Dr. Schamberg. The first was a boy about fourteen years of age, who denied positively having ever had natural or unnatural sexual connection. Examination showed condylomata in the anal region of undoubted syphilitic nature and a sclerosis on the penis. He had been sleeping with his brother, a boy of sixteen years of age, who was then presented with an initial lesion on the penis. He also denied sexual intercourse. The first boy had also previously been sleeping with his uncle. Interrogations were useless under the circumstances, but the inference is perfectly obvious.

A Case of Possible Seborrhoic Dermatitis of the lips and adjoining mucous membrane was exhibited by Dr. Schamberg. The patient was a colored woman. The condition had lasted six weeks. The possibility of lupus erythematosus and lues was entertained.

SAMUEL HORTON BROWN, M.D., *Reporter.*

BOOK REVIEWS.

Les Vaisseaux Sanguins des Organes Génito-Urinaires du Périnée et du Pelvis. By Prof. L. H. FARABOEUF, Paris. Masson & Cie., 1905.

This amplified graduation thesis consists of a detailed study of the blood vessels of perineum and pelvis, male and female. The complete division between the vessels of the pelvis and those of the perineum is established and the venous plexuses are studied in detail. The work has no very direct bearing upon practice, but is an excellent contribution to anatomy. It is unfortunate that, in so small a volume, space is wasted for full-page reduplications of no less than seven illustrations.

Essentials of Genito-Urinary and Venereal Diseases. SAUNDERS' QUESTION COMPENDS, No. 13. By S. S. WILCOX, M.D. W. B. Saunders Company, 1906.

Were it possible for a compend to be good, this were a good one though it shows the inevitable defects resulting from an attempt to abbreviate what cannot be abbreviated. For instance: "What is the treatment of tuberculosis of the testicle?"

"Castration."

The work is avowedly a compilation and condensation of the best American authorities, and in many ways does credit to its sources. The author states inaccurately however, that the chancroidal bacillus has never been obtained in pure culture. The volume shows evidences of hasty preparation. Figs. 72 and 73 have their captions transposed and the following statements are startling: Inject hydrocele "with a few drops of compound tincture of iodine and carbolic acid

crystals." For threatening gangrene in orchitis incise the tunica "vaginalis." The author has collected all the defects of his book in the following question and answer:

"When does gumma occur?"

"During the late years of hereditary syphilis gummata are the condylomata lata which are formed by the coalescence of papular syphilids. They are essentially chronic and prone to break down and ulcerate. These lesions require local as well as constitutional treatment."

On the Relations of Diseases of the Skin to Internal Disorders with Observations on Diet, Hygiene and General Therapeutics. By L. DUNCAN BULKLEY, A.M., M.D., Physician to the New York Skin and Cancer Hospital, Consulting physician to the New York Hospital, Consulting Dermatologist to the Randall's Island Hospital, to the Manhattan Eye and Ear Hospital and to the Hospital for Ruptured and Crippled, etc., etc. New York. Rebman Company. 1906, pp. 175-xv. Demi 8vo, \$1.50.

The Influence of the Menstrual Function on Certain Diseases of the Skin. Same author and publisher, pp. 108-x, Demi 8vo, \$1.00.

These two brochures will appeal to those who have a constitutional tendency, a diathesis, favoring the mysterious in pathology. They contain a collection made from original sources are culled from literature of clinical observations of skin diseases which were associated with internal disorders, actual or hypothetical, in a jumble of *propter* and *post hoc*. They abound in such learned terms as "faulty metabolism," "auto-intoxication," "neurotic disturbances," etc.; treat with scorn the narrow views of the Vienna and German schools and offer some remarks on the broadness of "true dermatology." The chapters on diet and hygiene are quite as good as those found in most elementary treatises on these subjects, but are hopelessly prejudiced by the remarkable exposition of the author's views on the digestion of milk. He "believes" that milk, introduced into the stomach under certain conditions set forth with great emphasis and detail passes directly *as milk* into the blood current. This is real science!

The books are attractively printed.

A Compend of Diseases of the Skin. By JAY F. SCHAMBERG, A.B., M.D., Professor of Diseases of the Skin, Philadelphia Polyclinic and College for Graduates in Medicine, Fellow of the College of Physicians of Philadelphia, Member of the American Dermatological Association. Fourth Edition, revised and enlarged with 108 illustrations. Philadelphia. P. Blakiston's Sons & Co. 1905, pp. 299, Demi 8vo, \$1.00.

That this little book which constitutes the dermatological volume to its publisher's well-known series of "Quiz-Compend," serves the purpose for which it is intended, is evidenced by fact that four editions have been called for in scarcely more than an equal number of years. In the latest issue the principal change is found in the addition of a chapter on Actinotherapy and Radiotherapy which presents these subjects in a succinct, clear and judicial manner.

OBITUARY

CHARLES WARRENNE ALLEN, M. D.

Charles Warrenne Allen was born at Flemington, New Jersey, on December 4th, 1854. He was the son of George A. and Mary Bonnell Allen. His father was a lawyer.

As a boy he attended school in his native place; later on he was sent to the Lycée Imperial of Nantes, France; then returning home he passed his final school days at the Phillips Exeter Academy, Exeter, New Hampshire, from which he was graduated in 1875.

After leaving school he went, first, to the Medical Department of Harvard University, Boston, and then to the College of Physicians and Surgeons, the Medical Department of Columbia University, New York, where he was graduated in 1878. He then served as interne at the Work and Alms House Hospital on Blackwell's Island, New York City. During the years 1879 and 1880 he studied in Vienna, Heidelberg, and Paris.

Returning from Europe he settled in the city of New York as a general practitioner, at the same time giving special attention to the study of dermatology. Quite early in his career he was appointed Genito-Urinary Surgeon to Charity, now City, Hospital, and when he gave up that position he was made Consultant Surgeon to the same institution. As physician for diseases of the skin to the Essex Street or Good Samaritan Dispensary, he had the control of a vast amount of material of which he made good use, and thus became a most expert Dermatologist. In 1900 the excellence of his work gained well merited recognition in his appointment to the Professorship of Dermatology in the Post Graduate Medical School, a position that he occupied at the time of his death. He was also Consultant Dermatologist to the Randall's Island Hospital, New York; to the Hackensack Hospital, and the Bayonne Hospital, New Jersey; and to the Infant Asylum of the Holy Rosary, New York.

He was a member of the Medical Societies of the County and State of New York, the Lenox Medical Society of New York City, the New York Dermatological Society, and the American Dermatological Association. He attended many of the meetings of the



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International Medical Congress, and the International Dermatological Congress, and took part in their proceedings.

For some years he was one of the editorial staff of the *New York Medical Record*. He was a frequent contributor to medical journals, and made many valuable observations that have been of use to his associates. A partial list of his papers here follows:

Molluscum contagiosum. *Jour. Cutan. and Genito-Urin. Dis.*, Aug., 1886.

Dermatitis multiformis gestationis. *Journ. Cutan. and Genito-Urin. Dis.*, Aug., 1889.

Treatment of erysipelas. *Amer. Journ. Med. Sciences*, July, 1891.

Some glycosuric dermatoses. *Med. News*, Oct. 24, 1896.

Impetigo contagiosum universalis. *Annal. Gyn. and Pediat.*, 1896.

Treatment of ringworm of the scalp in institutions. *Pediatrics*, Aug. 15, 1896.

A scale of measurements for the more accurate description of cutaneous lesions. *Jour. Cutan. and Genito-Urin. Dis.*, Jan., 1898.

The inoculation wound of lues. *Med. Record*, March 17, 1900.

Differentiation between the bullous, vesicular, and pustular eruptions of early life. *Jour. Amer. Med. Assn.*, April 7, 1900.

Clinical considerations upon chancre and cancer. *Post-graduate*, Dec., 1900.

Treatment of cutaneous epithelioma. *N. Y. Med. Journ.*, Nov. 9, 1901.

Nature of cutaneous epithelioma, with remarks on its treatment with X-rays. *Med. Record*, Jan. 25, 1902.

Present status of radiotherapy in cutaneous diseases and cancer. *Med. Record*, Nov. 15, 1902.

Lichen planus as a vesicular and bullous affection. *Journ. Cutan. and Genito-Urin. Dis.*, June, 1902.

Radiotherapy in cancer and skin diseases. *N. Y. State Journ. Med.*, 1902.

The value of radiotherapy in cutaneous and other cancers. *Journ. Cutan. Dis.*, Feb., 1903.

A new form of focus tube. *Journ. Cutan. Dis.*, April, 1903.

High frequency currents in the treatment of skin diseases. *Med. Record*, Feb. 20, 1904.

Dermo scale for the more accurate description of skin lesions. *Post-graduate*, May, 1906.

The high frequency spark in a xanthoma-like degeneration of the lips. *Medical Record*, Sept. 23, 1906.

Besides being a contributor to several medical encyclopædias, he was also the author of the following books:

The Practitioner's Handy Book of Medical Progress (in conjunction with Dr. Sobel). Wood & Co., N. Y., 1899.

Practitioner's Manual. Wood & Co., N. Y., 1899, 2d ed. 1902.

Radiotherapy, Phototherapy, and High Frequency Currents (in conjunction with Drs. Franklin and Stern.) Lea Bros. & Co., Philadelphia, 1904.

It will thus be seen that Dr. Allen was a man of immense industry, and well deserved all the honors and practice that came to him. He was a tall man of imposing presence, a ready talker, with an easy approachable manner, and a kindly disposition that made friends for him wherever he went. He was an acute observer, and an intelligent workman. He was one of the first American physicians to recognize the possibilities of X-rays as a therapeutic agent, and in his completely equipped laboratory probably did as much X-ray work as any man in this country. He was not fanatical, but eminently sane and conservative, recognizing both the possibilities and limitations of the rays.

In April, 1887, he married Miss Grace L. Boardman of Boston. She died in 1900, leaving two daughters. During the past few years he was in the enjoyment of a large and lucrative practice. In April he went to Lisbon to attend the meeting of the International Medical Congress, to which he was a delegate from the American Dermatological Association. He sailed homewards from Genoa on May 17th. He was ill when going on board; was put off at Gibraltar, and died there in the Colonial Hospital on May 30th, 1906. His death was due to typhoid fever. His body was buried at Gibraltar.

Dr. Allen is the first member of the New York Dermatological Society who has died while in active membership, and the fifth member of the American Dermatological Association who has died since its foundation thirty years ago. His death was announced at the meeting of the last named Association while in session in Cleveland on May 31, where he was expected to read a paper. He will be greatly missed by us all, and especially next year when the International Congress of Dermatology meets in New York. His genial manner, his wide European acquaintance, and his command of both the French and German languages well fitted him to play the part of host to our foreign visitors.

Geo. T. Jackson.

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NOTES ON THE TREATMENT OF EPITHELIOMA BY MEANS OF CAUSTIC POTASH

By ARTHUR VAN HARLINGEN, M.D.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

THE excellent results obtained in most forms of epithelioma of the skin by the use of X-rays, does not exclude the employment of older forms of treatment in cases where the latter give a more rapid and satisfactory result, or where circumstances render the use of the X-rays inconvenient.

I have therefore thought it might be of advantage to put upon record the results which I have obtained in a certain number of cases of epithelioma of the skin, chiefly by the use of caustic potash.

Caustics have been employed from the most ancient times in the treatment of malignant growths, and though their number is great, there are only a few which have preserved their popularity to the present day. These have been the caustics which destroy not only the disease, but all the tissues of the body so far as their influence can reach. The milder caustics as nitrate of silver, the weaker acids, etc., may be set aside as having failed for the most part in the cure without relapse of morbid growths, and but little more can be said of the selective caustics as pyrogallol.

Among the most satisfactory of the destructive caustics, caustic potash is that with which I have had most experience and the one which has given me the best results. It dissolves the horny layers of the skin, lays bare the diseased tissues and while destroying everything indiscriminately can be accurately limited in its effects by one accustomed to its use. The pain is not too severe for most patients to endure, it need not be prolonged, and can be arrested at any moment by the use of a neutralizing agent as acetic acid. The only caustic which can be compared with caustic potash for efficiency, is arsenic and the arsenical pastes are apt to give rise to severe and prolonged pain.

The present paper is based upon the brief notes which I have

made in my private office of some fifty-five cases of epithelioma treated by means of caustic potash, cases occurring at various intervals in the course of years. The notes of these cases were set down at the time, without any idea of making use of them and are in consequence occasionally lacking in some of the data desirable. However, they seem to show certain points of interest in the occurrence and treatment of those minor forms of cancer we most frequently meet with in practice, and I have accordingly transcribed them and have made an analysis of their chief features. These cases occurring in private practice, are of a comparatively less severe character than those seen in hospitals or dispensaries.

Of the cases treated, thirty were males and twenty-five females.

The age of two cases was not noted. Of the remaining fifty-three, six were between thirty-five and forty, eleven were between forty and fifty, sixteen were between fifty and sixty, thirteen between sixty and seventy, four between seventy and eighty, two between eighty and ninety, and one was ninety-four years of age. The average age was between fifty-six and fifty-seven. These dates refer to the time when I saw the patients; the disease, especially in the older cases, had probably originated much earlier. Several interesting points might be brought out by a further analysis of the data just given, but these would have no bearing upon the subject of treatment, so I shall forbear to touch upon them.

As regards the localization of the epitheliomata treated by caustic potash, they were all, or almost all, facial. It may be worth while to note the points chiefly affected. In thirty cases the lesion was on the left side of the median line. In thirteen cases, it was on the right side, and in twelve cases it was on or near the central line. The left cheek was the seat of the lesion in ten cases, the left side of the nose in nine cases, and on the right side of the nose, the right cheek and the right temporal region, the lesion occurred four times in each instance. On the left cheek and the left temporal region, the lesion occurred in each instance three times. On the left lower eyelid the lesion occurred also three times, while each ear was affected once and each side of the upper lip once.

Most of the lesions operated upon were quite small. Of the entire number six were noted as pin-head sized or involving apparently a single sebaceous gland. Twenty-five were split-pea to small coin sized. Five were between one and a half and two centimeters in diameter and three were two and a half to three centimeters in diameter. A few were much larger. Twelve, I am sorry to say, were unnoted as regards size, but were probably quite small.

In almost all the cases, entire reliance was placed upon the

caustic potash. Occasionally slight relapses or what appeared to be such, were treated with one of the mineral acids, formalin, pyrogallol, etc.; but in most of the cases, nothing was added to the original cauterization.

In one case the wound made by cauterization, healed in ten days. In five cases it healed within two to two and a half weeks. In eleven cases it healed in from three to three and a half weeks. In eleven cases four weeks were required, and in seven cases five or six weeks. Four cases took eight weeks to heal, and in the remainder of the cases, the duration of the cure was not noted, or, as happened in a few instances, the result was unfavorable. As a rule, I should say that the wound caused by cauterization with caustic potash takes four weeks to completely cicatrize.

While in the majority of my cases the results of treatment were satisfactory, yet there were a certain number where, from several circumstances, the treatment was unsatisfactory or a complete failure. Some of these I will briefly recount.

Mrs. R. D., sixty years of age, consulted me for a superficial, wandering lesion, two centimeters square, consisting of a reddish infiltrated, partly ulcerated and partly nodulated, patch, situated on the left side of the nose, the ala nasi, and adjoining cheek. The disease was of nine years duration.

After scraping and applying pyrogallol, with indifferent success, the electric cautery was employed which completed the cure to all appearance. A relapse occurring some four years later, caustic potash was again applied, which resulted in a cure, lasting two years longer. Then, small points showed signs of fresh disease and were cauterized from time to time with the caustic potash, thus tiding the patient along, until her death from intercurrent disease, eleven years after first coming under my care and twenty years after the inception of the disease.

I could not thoroughly destroy the growth because it would have involved destruction of the ala nasi which the patient would not risk.

In the present state of our knowledge, the treatment by X-ray would in all probability have been used and would have given a completely satisfactory result in a comparatively short time. Such, however, was not the case with regard to the epithelioma I am next to report.

Miss C. B., about fifty years of age, consulted me for an epitheliomatous growth situated at the juncture of the left ala nasi with the cheek. The growth had been operated upon by the knife one or more times, but had recurred. There was a small

ulcerated opening surrounded by a flat pearly border. The whole area of induration, which was rather deep, was perhaps the size of half a hazel nut. There seemed to be some extension of the epitheliomatous process into the nasal passage, how far was difficult to make out.

Caustic potash was applied outside and the electro-cautery within the nostril. Pyrogallol was subsequently employed and the lesion seemed to be healing when the patient went away for the summer and was not seen for three months. Some retrogression was then noted, but treatment was again taken up for a month or so when the patient went South for the winter. She was seen again for a few weeks in the spring, and then disappeared for two years, the disease being evidently in abeyance, for no treatment was employed during that time.

A relapse having occurred, I was called in and found a narrow linear band of epitheliomatous disease outside the left ala nasi, a small nodule in the pit-like cicatrix and evident further involvement in each nostril.

Caustic potash was again employed.

An attack of typhoid fever here occurred and the patient was not seen for an interval of about nine months. The nostrils were more deeply involved by this time. Caustic potash was applied externally and pyrogallol within the nostril. The lesion sloughed out and showed a cavity the size of a chestnut. Shortly after this the patient consulted another dermatologist, then a laryngologist, then other specialists and recently perished under the surgeon's knife.

This case was subjected to the X-ray treatment at one time, I have learned, but without good results. It was probably bound to pursue a fatal course, almost from the beginning. I had hopes, however, until after the patient's absence for two years, the disease was seen to have invaded the mucous membrane of the nostril.

Mr. J. S., ninety-four years of age, consulted me for a small linear ulcer with some superficial epithelioma on the antihelix of the right ear. The patient was, unlike most old persons, very sensitive to pain, and on that account the lesions were lightly cauterized with the hope of removing what seemed a comparatively trifling epithelioma. Later, however, I employed caustic potash, with the result that the lesion seemed about to heal, when, suddenly, the whole lower part of the ear became infiltrated, deep red and œdematous, the lymphatic glands of the cervical region became involved, ulcerated and after a few months the patient succumbed to the drain upon his system.

In this case, although the original lesion seemed a comparative trifle, yet deep-seated cancerous infection was probably going on

unseen when I first examined the patient, and probably no treatment in so aged a person would have prevented a fatal result.

Another case, occurring about the ala nasi, was that of J. McM., seventy years of age, in whom a thorough cauterization resulted in a perforation of the ala, some size, requiring a plastic operation. The caustic potash was effectual, but the cosmetic result was unsatisfactory.

Several cases have been treated by me with caustic potash in past years in which in the present state of our knowledge I should prefer to use the X-ray.

One of these was H. S. L., an old soldier, sixty-two years of age, who showed a ragged serpiginous ulcer with scattered pearly nodules, upon the inner side of the left lower eyelid. Repeated cauterizations with caustic potash were followed by repeated relapses here and there, none extensive, but enough to make me begin to consider the result more than doubtful when the patient died of some disorder of the stomach which the attending physician told me had been considered cancerous.

With the X-ray, had we had it, this case could have been cured readily.

A case of very extensive ulcer, with epitheliomatous borders, involving a fair share of the left side of the face, with pearly outgrowths behind the ear, on the forehead, and on the neck, was treated by me at intervals for several years with considerable success, leaving, however, one focus of disease which had laid bare the duct of Steno. After the patient left my care to go to another city, I learned she had greatly improved. I do not know under what treatment, but I believe if we had had the X-ray at the time I first saw her, the cure would have been the affair of months instead of years. I should never think of using caustic potash or other caustics on such a case at present.

The case of F. J. H., aged eighty-five, also illustrates the failure of caustic potash in these serpiginous wandering epitheliomata, which in some instances so closely resemble blastomycetic dermatitis.

This patient had lesions of many years duration. He presented an irregular ragged serpiginous ulcer involving the antitragus of the left ear and surrounding tissues over the temporal and facial region. Repeated cauterizations with caustic potash, at considerable intervals, as the patient lived in a distant city, resulted in an apparent cure of all but that portion of the disease which affected the external meatus of the ear, to which it had spread from the anti-tragus. The patient died suddenly while under treatment for some intercurrent

affection. I have no doubt but that caustic potash was the best treatment I could have employed in this case at the time, which was some years ago. At present, with the use of the X-ray a much better and possibly a perfectly satisfactory result could be reached.

Miss K. P., thirty-five years of age, presented an eruption which, possibly, microscopic examination might have shown to be blastomycetic dermatitis if the blastomyces had been known at that day. It was, however, pronounced to be epithelioma. The disease was of twenty years' duration, began as a small red "spot" which gradually became elevated and spread. When examined, she showed an irregularly roundish patch of disease over the left side of the forehead and temple and extending up into the scalp. The edges of the lesion were elevated, hard and pearly in lustre, while in the center of the patch were shallow ulcers covered with a crust and interspersed with unhealthy looking islets of cicatrix-like tissue. Caustic potash was applied a number of times, extending over a year or two, at intervals, and a cure finally resulted, but the X-ray treatment would have made short work of this case.

Mr. D. A., fifty-one years of age, had had a shallow serpiginous epithelioma for nearly thirty years. It had begun near the left ala nasi and had wandered down onto the left upper lip and covered the cheek, as far back as the ear and up to the lower edge of the orbit. He had had a great deal of treatment by qualified and unqualified practitioners, and when I first saw him, pretty much the whole side of his face was ulcerated and covered with a thick crust.

Caustic potash was employed as a caustic after the debris had been cleared away and bit after bit the entire face was gone over and healed up. After treatment at intervals for about two years only two points remained. One of these was on the ala nasi, in a position which is always threatening, and the other was under the left orbit, where there was a narrow epitheliomatous ridge.

The patient was then put on X-ray treatment. In three months he had fourteen sittings of twelve to fifteen minutes each, at a distance of about five inches. At the end of that time the skin looked almost perfectly healthy excepting where cicatrices of former treatment remained. One or two small crusted lesions remained on the ala nasi, but a subsequent series of eight sittings removed every trace.

In order to find out whether the treatment by caustic potash could not be supplemented by the use of the X-ray, I selected a case in which the caustic potash seemed the proper agent and cauterized with this agent. The lesion was a pearl-button epithelioma on the bridge of the nose. The cauterization was performed and was

immediately followed by the application of the rays. The exposures followed, every three days for a month. Distance six inches on an average and duration five to ten minutes. The wound made by the caustic potash healed in exactly the same time as if no X-ray had been used, and the result was in no way modified by the latter.

The conclusions at which I have arrived from the foregoing study, are as follows:

1. In a certain number of cases, epitheliomata of the skin are best treated by means of caustic potash.

2. These cases comprise such as display small well-defined pearly lesions, from one-half to one or even two centimeters in diameter, chiefly found upon the face and adjacent parts.

3. Larger lesions are best treated by the X-ray, but here caustic potash may be used to soften and dissolve the horny epithelium and perhaps in some cases, as an adjuvant.

4. In cases treated by caustic potash, the use of the X-ray does not appear to hasten the process of reparation or to modify to any marked degree the cicatrix resulting from cauterization.

DISCUSSION.

DR. M. B. HARTZELL referred to a method of treatment in epithelioma which he had found of great value, namely, the combined use of caustic potash and pyrogallol. The speaker said the method he followed was to first apply the caustic potash very superficially, and remove it as soon as it began to cause pain, and then apply a 40 to 50 per cent. plaster of pyrogallol. The action of the latter drug was very much accelerated by the preliminary use of the caustic potash, and a slough resulted which looked as though it had been cut out by a sharp punch. Dr. Hartzell said that some of his best results had been obtained by this method.

DR. RAVOGLI said he had seen good results from the use of caustic potash in epithelioma, his first experience with the method having been obtained while he was assistant to Professor Manassei, who had treated all his cases in this way. The action of the caustic potash often extended pretty deep, and gave rise to considerable pain.

More recently, Dr. Ravogli said, he had been using applications of formalin in superficial epitheliomata of the skin, with splendid results.

DR. STELWAGON said that one great advantage of caustic potash in these cases was the great rapidity of its action. He could recall at least half a dozen cases of epithelioma where, owing to the fact that the patients were from a distance and pressed for time, he saw them only once, and a cure was effected by a single application. In lesions about the side of the nose, this caustic should be used with caution, lest it produce a perforation. On the bridge of the nose, and on the cheeks and other parts of the face it was perfectly safe.

| <i>No.</i> | <i>Sex</i> | <i>Age</i> | <i>Character of Lesion.</i> | <i>Locality.</i> | <i>Duration.</i> |
|------------|------------|------------|---|---|------------------|
| 1 | M | 60 | A discolored, blackish, disintegrated lesion, one centimeter in diameter, so soft that a probe could be inserted and worked about in the mass. Underneath, considerable infiltration. | Point of chin. | One year. |
| 2 | F | ? | Three distinct patches, one, two centimeters in diameter, the others smaller, connected together by bands of cicatricial tissue. | Right temporal region. | Three years. |
| 3 | M | 60 | Papillomatous lesion with hard elevated base. Some "pricking," but no pain. | Tip of nose. | A year or more. |
| 4 | M | 39 | Small flat lesion about four millimeters in diameter. | Side of nose. | One year. |
| 5 | M | 84 | Senile wart with slow epitheliomatous degeneration, covered with a crust on removal of which a red, moist mamillated surface was shown. | Right side cheek. | Many years. |
| 6 | M | 50 | Irregularly shaped, warty lesion. | Left side nose. | No note. |
| 7 | M | 33 | Warty lesion, one centimeter in diameter. | Left side nose. | Twelve years. |
| 8 | F | 60 | Small telangiectasis; cicatricial tissue of doubtful character. | Tip of nose. | Not noted. |
| 9 | F | 60 | Rectangular, rather superficial lesion, about two square centimeters. A shallow, reddish, partly ulcerated patch with a pearly characteristic nodule in upper portion. | Left side of nose and on left ala nasi. | Nine years. |
| 10 | F | 39 | Yellowish white nodule four millimeters in diameter. Looking like a pearl shirt button, but yellowish in color. | Left side nose. | Five years. |

| <i>Treatment.</i> | <i>Time of Healing.</i> | <i>Result and Remarks.</i> |
|--|---|--|
| Caustic potash. Had to be repeated. | At the end of three weeks nearly healed, but some suspicious points re-touched. | Relapse after four months. Second operation. Six months later continued well. |
| Caustic potash. | Much improved at end of five weeks. | Probable cure, as cicatrization was completed when patient was last seen. |
| Caustic potash. | Eight weeks. | The lesion was cauterized too lightly the first time, and began to recur in about two weeks. It was then thoroughly destroyed by another application and healed nicely. At the end of six years the lesion had not returned. |
| Caustic potash. | Four weeks. | Three months later continued well. |
| Caustic potash. | | A few weeks later the patient reported by letter, that the lesion was "much improved." I did not see him again as he died a few months afterwards, but I have good reason to believe that the epithelioma was cured. |
| Caustic potash. | Four and a half weeks. | A year later there had been no return of the lesion. |
| Caustic potash followed by pyrogallol. | Four weeks. | A small keloidal scar resulted, with a minute milium-like, pearly nodule. This nodule was re-cauterized. Four months after the operation there was no return of the lesion. |
| Caustic potash. | Not noted. | No return of lesion six months later. |
| Scraping, pyrogallol, caustic potash, electro-cautery. | In three weeks seemed well. | Six months after scraping and pyrogallol, there was a slight relapse. The electro-cautery was employed. For four years the lesion seemed to remain well. At the end of that time a portion of the former lesion relapsed. Caustic potash was used and the lesion healed over and remained well for two years. Then, trifling relapses treated by superficial cauterizations for four years longer. Three years after last point was apparently well, a relapse occurred on left side ala nasi. In spite of various cauterizations—none of which could be made thorough on account of patient's debility, relapses here and there occurred until her death from other causes twelve years after first coming under my care. |
| Caustic potash. | After eight weeks a keloidal scar. | One year later no return of lesion. |

| <i>No.</i> | <i>Sex</i> | <i>Age</i> | <i>Character of Lesion.</i> | <i>Locality.</i> | <i>Duration.</i> |
|------------|------------|------------|--|--|---|
| 11 | M | 65 | Sebaceous and crusted lesion, oblong about one centimeter by two millimeters. On detaching the crust, a moist, warty, characteristic appearance. | Right side nose near inner canthus of eye. | Sebaceous crusts in locality for years. |
| 12 | F | 52 | Well marked lesion, one centimeter in diameter, with pearly border and a depression in center. | Center of forehead. | Three years. |
| 13 | F | 40 | A moist, crusted lesion, three millimeters in diameter. | Right side of chin. | Two years. |
| 14 | M | 58 | Lesion oblong, about one centimeter in diameter, with thickened and pearly edge. | Left ala nasi. | One year. |
| 15 | M | 60 | Small irregular papulo-tubercular lesion, five millimeters in diameter. | Left cheek, half an inch outside ala nasi. | Four to five years. |
| 16 | M | 45 | Small pearly lesion, five millimeters in diameter, on a cicatricial base twice the area. | Left side nose just below and two centimeters from inner canthus of eye. | Five years. |
| 17 | F | ? | Small warty lesion. | Bridge of nose. | Not known. |
| 18 | M | 52 | Characteristic pearly-edge lesion, five millimeters in diameter. | Right temporal region. | Not known. |
| 19 | M | 59 | Lesion five millimeters in diameter. Considerable inflammation from stimulating applications, a shallow abrasion cribriform. | Left cheek below orbit. | Two years. |
| 20 | M | 55 | A dry, warty growth, five millimeters in diameter, covered with a crust which left a bleeding surface when removed. | Right cheek below orbit. | Five years. |
| 21 | M | 65 | Well marked, hard edged epithelioma, one centimeter in diameter. | Right ala nasi. | Some years. |
| 22 | F | 55 | Oblong, warty lesion, one and a half by one centimeter in area. Incipient epithelioma. | Center of forehead. | Unknown. |

| <i>Treatment.</i> | <i>Time of Healing.</i> | <i>Result and Remarks.</i> |
|--|-----------------------------|---|
| Caustic potash. | Healed in about four weeks. | No sign of return at the end of three months. |
| Caustic potash. | Three weeks. | The lesion had been frequently cauterized with nitrate of silver. It showed no sign of return seven months later. |
| Caustic potash. | Ten days. | Sixteen years later the cicatrix of the lesion could be plainly seen, but there had been no return of the disease. |
| Caustic potash. | Unknown. | The operation was perhaps a little excessive, as a portion of the ala nasi was destroyed. The patient was not seen afterwards, but reported no return of the lesion some time later. |
| Caustic potash. | Six weeks. | No return up to four months subsequent to operation. |
| Caustic potash. | Five weeks. | No return up to two years and a half later. |
| Caustic potash. | Four weeks. | Slight telangiectasis in cicatrix. |
| Caustic potash. | Three and a half weeks. | No return up to fifteen years later. |
| Cooling applications followed by caustic potash. | Two and a half weeks. | No return up to thirteen years later. |
| Caustic potash. | About three weeks. | No return up to five months later. |
| Caustic potash. | About two weeks. | Almost immediately relapsed and a suspicious spot was touched with trichloroacetic acid. The lesion then healed and remained well about two months. During the subsequent six months it began to return, when a plastic operation was performed by a surgeon. |
| Caustic potash. | About two weeks. | Fourteen years later had shown no sign of returning. |

| <i>No.</i> | <i>Sex</i> | <i>Age</i> | <i>Character of Lesion.</i> | <i>Locality.</i> | <i>Duration.</i> |
|------------|------------|------------|--|--|----------------------|
| 23 | M | 42 | Lesion characteristic, warty, with pearl edges, five centimeters in diameter. | Left side upper lip near upper edge of mustache. | Three to four years. |
| 24 | F | 60 | Small lesion. Probably pearly nodule. | Bridge of nose. | Unknown. |
| 25 | F | 65 | Small cornu cutaneum on an epitheliomatous base. | Prominence of left cheek below orbit. | Unknown. |
| 26 | M | 65 | Typical rapidly growing superficial button-like lesion, one centimeter in diameter. | Left side nose. | A few months. |
| 27 | M | 43 | Superficial, serpiginous lesion, about three centimeters by two and a half centimeters in area. | Left side of forehead. | Some years. |
| 28 | M | 70 | Epithelioma five centimeters in diameter, arising from a pigmentary mole or wart. | Left temporal region. | Unknown. |
| 29 | M | 68 | Patch of infiltrated tissue with several pearly growths, apparently incipient epithelioma. | Left temporal region. | Unknown. |
| 30 | F | 45 | Dry, superficial lesion, two centimeters in diameter. | Left temporal region. | Eight or nine years. |
| 31 | M | 56 | A sharply defined, sunken ulcer covered with a crust about one and a half centimeters in diameter. | Below left eye on inner edge orbit. | Several years. |
| 32 | F | 37 | Warty lesion, with pearly edge, about one centimeter in diameter. | Left side face just beyond ala nasi. | Some years. |
| 33 | F | 79 | Split-pea sized, pearly nodule, surrounded by a patch of œdematous tissue. | Right side nose. | Unknown. |
| 34 | M | 50 | A pin-head sized but characteristic lesion, pearly and indurated. | Middle of left cheek. | Unknown. |
| 35 | F | 70 | Large bowl-shaped ulcer. A number of outlying lesions. Some pearly nodules back of ear. | Entire left side of face and elsewhere. | Seventeen years. |

| <i>Treatment.</i> | <i>Time of Healing.</i> | <i>Result and Remarks.</i> |
|--------------------------------------|----------------------------|---|
| Caustic potash. | About three to four weeks. | Four years later had shown no sign of returning. |
| Caustic potash. | About four weeks. | A slight crust appeared later, but this was removed by lactic acid and the lesion did not return. |
| Caustic potash. | Three to four weeks. | No return. |
| Caustic potash. | About two weeks. | A year and a half later had shown no sign of returning. |
| Caustic potash. | Four weeks. | One half the lesion cauterized at one sitting, the other half at a subsequent operation. Two and a half years later had shown no sign of returning. |
| Caustic potash. | Six weeks. | Twelve years later had shown no sign of returning. |
| Caustic potash. | Three weeks. | Several superficial scaly indurated patches over cheek were subsequently touched with caustic potash. Six months later no return. |
| Caustic potash. | Unknown. | Patient did not return for six months. The lesion had nearly healed and later recurred. A second cauterization was followed by an apparent cure in a little less than four weeks. |
| Caustic potash. | Unknown. | Four and a half months later, patient remained quite well. |
| Caustic potash. | About four weeks. | Nine years later had shown no sign of returning. |
| Caustic potash. | About four weeks. | Seven years later had shown no sign of returning. |
| Caustic potash. | Three weeks. | Eight years later had shown no sign of returning. |
| Caustic potash. Formalin, etc. | Indefinite. | A large number of cauterizations covering several years cured most of the lesions. Sometimes caustic potash was used. But later formalin. When all had been healed but a small portion, the patient removed to another city, and I have not since seen her. |

| <i>No.</i> | <i>Sex</i> | <i>Age</i> | <i>Character of Lesion.</i> | <i>Locality.</i> | <i>Duration.</i> |
|------------|------------|------------|--|--|---------------------|
| 36 | M | 51 | Shallow, serpiginous ulcers, ridges, cicatrices, etc. | Left side face from orbit to edge of lip and from nose to ear. | Twenty years. |
| 37 | F | 50 | Superficial creeping rodent ulcer—with cicatrices from former operation by knife. | Left ala nasi, penetrating nostril. | Some years. |
| 38 | F | 43 | A number of small, superficial scars from former treatment by electro-cautery. | Middle of forehead. | Eight years. |
| 39 | M | 70 | Superficial flat, pearly lesions, about one centimeter in diameter. Skin in neighborhood not very healthy looking. | Right cheek not far from nose. | A year and a half. |
| 40 | M | 50 | Several sebaceous glands covered with a crust which when removed, showed a moist surface, evidently incipient epithelioma. | Bridge of nose. | A year. |
| 41 | M | 45 | Two split-pea sized, pearly nodules. One of the lesions abraded on the the surface. | On right cheek just under orbit. | Two years. |
| 42 | M | 85 | Irregular, ragged serpiginous ulcer with subsequent involvement of cervical glands. | Left ear, later side of cheek below. | Many years. |
| 43 | M | 62 | Typical flattened, round, pearly epithelioma with a narrow hard ridge below, terminating in an ulcer about one and a half centimeters in diameter. | Under and inside of lower left eye-lid. | Two or three years. |
| 44 | M | 65 | A warty growth about one centimeter in diameter, covered with a sebaceous crust, on removal of which several purulent points could be seen. | Left side face about one inch in front of ear. | Some years. |
| 45 | F | 55 | An elongated ulcer two and a half centimeters in length by three millimeters in width. | Diagonally down from inner canthus and below left eye. | Nine months. |

| <i>Treatment.</i> | <i>Time of Healing.</i> | <i>Result and Remarks.</i> |
|--|--------------------------|---|
| Caustic potash. Formalin, X-ray. | Indefinite. | Repeated cauterizations extending over eighteen months or two years, at first with potash and later with formalin, had healed up the whole surface. Now and then a shallow ulcer broke out and had to be cauterized. A few sittings with X-rays cleaned up the whole surface and gave a finished effect. |
| Caustic potash and other caustics. | Uncertain. | This case seems to show the limitations of caustic potash. It was operated on a number of times, and the external portion healed, but the interior of the nostril could not be reached by the potash. The patient's condition could only be temporarily alleviated. After four years' treatment, at intervals, with considerable neglect, the patient left my care and took four years more of various treatment under different specialists, the disease penetrating the nasal cavities more and more, until death finally ensued. |
| Caustic potash. | Six weeks. | No remarks. |
| Caustic potash. | Two weeks. | About three weeks after operation, the suspicious skin about the seat of original lesion developed several pearly nodules, and another cauterization with potash was employed. This occurred twice. One year subsequent to last operation no return was observed. |
| Caustic potash. | Three weeks. | Scar half a centimeter in diameter. |
| Caustic potash. | Four weeks. | Patient's father eighty-four years of age, was suffering at the same time from cancer of lip and mouth. |
| Caustic potash. Formalin, etc. | No permanent benefit. | A case showing the uselessness of caustic potash in deeper and more infiltrating varieties of epithelioma. Fatal result. Partly from exhaustion and old age. |
| Caustic potash. | Some improve- ment. | New lesions appeared requiring fresh applications and as the patient was only rarely seen, progress was slow. Death occurred (it was said of rapidly developing cancer of stomach) during an interval of absence. |
| Caustic potash. | About two months. | |
| Caustic potash. | Four weeks. | This lesion was first touched with formalin, later with nitric acid. It was found necessary to use stronger measures and the potash was employed, which seemed effectual up to two months later, when last seen. |

| No. | Sex | Age | Character of Lesion. | Locality. | Duration. |
|-----|-----|-----|---|--|---------------|
| 46 | F | 45 | Well marked pigmentary nævus about one centimeter in diameter; incipient epithelioma. | Left cheek. | Not noted. |
| 47 | F | 39 | Flat ulcer one centimeter or more in diameter. | Upper lip near middle. | Three years. |
| 48 | F | 35 | Irregular, roundish patch composed of shallow ulcers and cicatricial patches. Some pearly indurated lesions elevated above general surface and covered with crusts. | Left side of forehead extending up towards and into scalp. | Twenty years. |
| 49 | M | 40 | Small ulcerated serpiginous lesions. | Right side of nose and ala nasi. | Some years. |
| 50 | F | 50 | Typical pearly lesions of epithelioma two in number, one-half to one centimeter in diameter. Following psoriasis of many years standing. | Forehead, left side | A few months. |
| 51 | F | 40 | Shallow ulcerated lesion, two to three centimeters in diameter. | Right temple. | Unknown. |
| 52 | F | 50 | A flat warty growth one and a half centimeters in diameter, covered with a sebaceous crust. Enlarged gland openings in neighborhood. | Left cheek outside and below orbit. | Two years. |
| 53 | F | 40 | A pin-head sized, crusted lesion, apparently affecting a single sebaceous gland. Removal of crust showed a well of pus beneath. | Bridge of nose. | Unknown. |
| 54 | F | 36 | Partly cicatricial patch, three centimeters in diameter; the upper half showing pearly epitheliomatous bodies. | Right temple. | Unknown. |
| 55 | M | 94 | Apparently superficial lesion with a deep fissure at the lower part. | Antihelix of right ear and tissues below. | Unknown. |

| <i>Treatment.</i> | <i>Time of Healing.</i> | <i>Result and Remarks.</i> |
|--|-------------------------------|--|
| Caustic potash. | Eight weeks. | Four years later a new warty growth appeared alongside of the cicatrix left by former operation. Nordhausen sulphuric acid was applied to this lesion, which soon disappeared. Continued well three months later. |
| Caustic potash. | Between three and four weeks. | Slight relapses occurred later, but by using pyrogallol and later ethylate of sodium, these remnants were removed. Seven and a half years later no recurrence had been observed. |
| At first carbolic acid. Later caustic potash. | Indeterminate. | This case resembled closely one of blastomycetic dermatitis, but as no microscopic examination was made, the fact remained in doubt. The very early date (15 years) at which the disease began, is opposed to the usual rule with regard to the occurrence of epithelioma. |
| Caustic potash and later Liq. Hydrarg. nitratis. | Indeterminate. | This lesion was one of those soft, easily broken down serpiginous growths which is difficult to limit. It was impossible to destroy the whole growth at once. It had to be done a little at a time, owing to the locality of the disease and the patient's circumstances. |
| Caustic potash. | Indeterminate. | The cauterizations were repeated until the two original lesions disappeared. Six months later a small epithelioma appeared on the right shoulder, half a centimeter in diameter. This yielded to cauterization with Nordhausen sulphuric acid. |
| Nitric acid, afterwards caustic potash. | Five weeks. | First cauterized with nitric acid, but as this did not prove satisfactory, the caustic potash was used with good result. |
| Caustic potash. | Five weeks. | |
| Caustic potash. | Four weeks. | |
| Caustic potash. | Three weeks. | Two years later showed no return of disease. |
| Caustic potash and formalin pyrogallol. | Indeterminate. | After repeated cauterizations which improved, but did not heal the lesion; deep infiltration and secondary infection of the cervical glands ensued, and the patient finally died of exhaustion. |

THE LENGTH OF THE PRIMARY INCUBATION STAGE OF SYPHILIS.

By ABNER POST, M.D., of Boston.

Read before the Twenty-ninth Annual Meeting of the American Dermatological Association, New York, December 28, 29, 30, 1905.

IN the *Journal of the American Medical Association* for June 6, 1903, is an interesting article on Syphilis, in which occurs the following:

“The first evidence of syphilis is the chancre, which may show any time after infection, periods of time related being from four or five days to as many as one hundred [or] more days.”

This expression of opinion was entirely opposed to my own, and what I believe to be the generally received, opinion. It ignores the essential fact of an incubation stage.

In view of such an expression, coming from well-recognized authority (and a member of our own Association), it seems worth while to review the sources of our knowledge on the subject and see if we cannot arrive at a more satisfactory statement. Syphilis is not the erratic and lawless thing that the quotation would imply. When it appears to be lawless, it is our ignorance that makes it appear so, and it is our duty to search for its laws and not be content with our ignorance.

Our knowledge of the length of the incubation period depends upon clinical observation and the results of experimental inoculation.

Now, clinical observation in this matter has this peculiarity, that it is not what the observer sees, but depends entirely upon the statement of the patient. Very few patients are at all reliable as observers. They forget exact dates and they are influenced by their own preconceived ideas. Patients in public clinics are certainly not at all the class of persons from whom scientific accuracy in statement can be expected.

In private practice, the individuals who can remember with exactness as to dates for even a month are exceptional. And, in addition, it is so foreign to the ideas of most people that an inoculation can date back three or four weeks that their belief tinges their state-

ments and necessitates the most careful cross-examination. There is, of course, a certain amount of wilful misrepresentation.

In addition to the fallacies of human observation and deduction, the fact must be considered that the virus of syphilis must often, if not always, be contaminated with the ordinary pus-producing organisms, which must confuse and invalidate the opinions of the observer.

The generally received opinion in regard to the length of the incubation of the primary lesion has changed as our knowledge of syphilis has progressed.

The primary symptom, says Hunter, may supervene within twenty-four hours, but it may also appear weeks and even months after infection.

This opinion was generally received until M. Ricord utterly denied the incubation of a chancre, explaining the belief in it by the indolence of the ulceration and the carelessness of patients, and calling the interval elapsing between infection and the appearance of the sore "the period of oversight."

Jullien gives a table of the views of different authors as to the period of incubation, and calls attention to the remarkable regularity of the change in opinion which took place in twenty years, a steady and progressive increase in the length of the period being observed.

This table and Jullien's comments upon it have been copied freely.

| | |
|---|---------------|
| Diday, 1857 | 14 days |
| Clerc, published in 1866, collected previously..... | |
| | 14 to 16 days |
| Chabaliér, 1863 | 15 to 18 days |
| Leon le Fort, 1863 | 19 days |
| Rollet, anterior to 1865..... | 25 days |
| Fournier, anterior to 1865..... | 26 days |
| Sigmund, 1860-1864 | 28 to 25 days |
| Mauriac, 1870-1871 | 40 days |

Jullien suggests that, as the skill and accuracy of these observers are beyond question, this fact is in accord with the decreasing severity of syphilis, and with the circumstances which he thinks generally admitted that chancres of long incubation are apt to be followed by benign syphilis.

A better explanation, and one more in accord with the facts, would seem to be that the further the removal from the age of confusion the better the ability to recognize the characteristics of the true chancre.

When we come down to the present, we find the emphasis placed upon the longer intervals, but with a startling degree of uncertainty as to the range from minimum to maximum.

R. W. Taylor, in his edition of 1900, wrote:

“Clinical observations and experimental inoculations enable us to say that the duration of this period (the first period of incubation) may be in very exceptional cases as short as ten days and as long as seventy days. I myself have seen undoubted instances of sixty and seventy days’ primary incubation. In general, however, the average will be found to be between twelve or fifteen and twenty-one days.”

The words of Taylor are quoted by Crocker in his second edition as authoritative.

Hyde, in the article on syphilis in Wood’s Handbook, writes:

“This period, usually described as the first incubation stage, extends on an average from about sixteen to thirty days, but it is claimed that exceptional cases occur in which it may be as brief as two or three days only or prolonged beyond the larger number of days named above.”

Jonathan Hutchinson:

“Although I have, I believe, in previous writings, always put the incubation period of chancre as longer than that usually given by authors, and have constantly asserted that it is far more regular and uniform than is generally believed, yet I have never previously given it a duration quite so prolonged as that which I am now inclined to claim. I have formerly held that a month is its average, and that it is more frequently rather shorter than longer. I should now be inclined to say that a month is a short average and that five weeks is a more common period.”

Alfred Fournier in his “Treatise,” of which the first fascicle was published in 1898, p. 22, expresses the opinion that the incubation in the majority of cases is three to four weeks. 26 days appears to be the most frequent. But it may last a shorter time, 20, 18, 17, 15 days, or longer, 30, 35, 39, 42 days.

He then makes this important statement:

“One ought to consider as exceptional and subject to revision

the cases where it notably departs from these mean figures; it may be longer, 50, 60, 75 days, or shorter, 12, 10 days. One ought to hold in suspicion as probably erroneous those where the incubation is reduced to some days, even one day, or raised to three or four months."

Evidently we need a series of experimental observations in which the time of inoculation and of the first manifestation at the period of inoculation may be carefully observed. Such experimental inoculations were done quite freely in the middle of the last century, not to decide the incubation period so often as to settle other questions: questions relating to the distinctions between syphilis and other diseases; as to the inoculability of secondary lesions and of the blood and of auto-inoculability. Many of these cases are reported too carelessly to be of much value: many were done upon syphilitics, and, of course, are valueless for our purpose, but there remains a small number of cases in which the incubation stage is stated with exactness.

The best available account of these inoculations is given by Rollet in his "Traité," published in 1865. He gives the cases in a tabular form and also an abstract of each case with a reference to the original publication.

Rollet's table gives 27 different cases, or series of cases, but some of them ought fairly to be disregarded. Cases in which repeated inoculations were made at intervals of several days are not proper cases to decide the time of incubation, nor cases in which mercury and iodide were given during the observation, nor cases which failed to show secondary manifestations. There are nine cases of this sort in Rollet's table which ought to be thrown out. Of these cases thrown out, if taken at the figures given by Rollet, none fails to show an incubation stage; none differed greatly from the average of those left for consideration.

No. 9 of Rollet's table is the series of cases done by the anonymous surgeon of the Palatinate¹ and reported at a medical meeting by the secretary, who vouched for their accuracy about 1858. He inoculated fourteen individuals, of whom four showed no results. of the ten successful inoculations, he gives only the shortest incubation and the longest, 15 to 42 days, and not even the average of the whole. It seems wiser to disregard for the present these cases than to take simply the extremes in so large a series.

¹The report of these cases is found in the *Archives generale de Medecine*, 1858, fifth series, Tome xi. p. 603. The patients were apparently inmates of a house of detention, but no further details of the incubation period are given.

There are left sixteen cases for consideration in which the date of inoculation and of the appearance of the primary lesion is given.

Of these sixteen cases, one attracts attention from the fact that it is shorter by five days than any other. In this case the time between the inoculation and appearance of the primary sore is put at ten days.

Rollet's account of this ten-day case is as follows. It was told at the clinic of Vidal by Doctor Lindman himself, and reported by an interne under his dictation.

M. L., a German physician, inoculated himself ten or a dozen times in December, 1850, and January, 1851. These inoculations all cicatrized in five or ten days. No mercurial treatment.

On July 8, 1851, he inoculated himself on the forearm with material taken from the tonsil of a syphilitic. July 18, ten days later, there appeared an elevation at the spot of inoculation which the Doctor described as a papule, and which ulcerated and was the beginning of syphilis.

Whether a verbal account reported by an interne might not be erroneous in its dates, seemed a question worthy of investigation and reference to the original reports justified the suspicion.

It is told in an article on Syphilization in the *Annales des Maladies de la Peau et de la Syphilis*, 4th volume, 1851-1852. The story was told in reference to syphilization at the meeting of the Society of Surgeons on November 12, 1851, and was repeated at the meeting of November 17 to draw attention to the inoculability of secondary accidents.

At the first meeting Doctor L. was presented by M. Musset, interne of the service of M. Ricord, and he gave the date of experimental inoculation as July 2d, and expressed the hope that Dr. Lindman would tell his story himself later.²

At the second meeting, Doctor L. was shown by M. Pellargot, interne of M. Vidal, and in this second account the date of inoculation was given as July 8. It is evident that Doctor L. had no written data. When two internes of different services differ six days in their account, it hardly seems a proper case on which to rely to establish scientific facts as to time.

We have, then, remaining fifteen cases of experimental inoculation, classified as follows:³

² *Union Medicale*, 15 Nov., 1850.

³ The following are the numbers in Rollet's table which have been discarded: 1, 5, 6, 7, 8, 9, 13, 15, 16, 18, 23, 27.

| | |
|--------------|---------------------|
| 1 case..... | 15 days' incubation |
| 1 case..... | 18 days' incubation |
| 1 case..... | 21 days' incubation |
| 1 case..... | 24 days' incubation |
| 2 cases..... | 25 days' incubation |
| 2 cases..... | 27 days' incubation |
| 5 cases..... | 28 days' incubation |
| 1 case..... | 34 days' incubation |
| 1 case..... | 35 days' incubation |

15 cases

Ten of these cases occur in the five days from 24 to 28 days, or two-thirds of the total number of cases. Nine cases three-fifths of the whole in four days, 25 to 28. The limits are 15 and 35 days. The average is 26 $\frac{1}{15}$ days.

To refer once more to the ten successful inoculations of the surgeon of the Palatinate: his shortest incubation was 15 days and longest 42.

Out of twenty-five experimental inoculations which seem reliable, fifteen days is the shortest limit and forty-two the longest.

In addition to the experimental inoculations, there are very numerous accidental inoculations such as have occurred in vaccination, tattooing, and circumcision. To search out from this mass of material the cases in which the exact number of days is given is a tedious task for which time is insufficient, but in regard to vaccination there are approximations which are valuable.

Mr. Hutchinson reported in 1871 a series of thirteen cases all vaccinated from one vaccinefer, who was afterwards found to be syphilitic. All but one "took" and the vesicles are believed to have gone through their usual stages. The patients were not under any close medical inspection afterwards, as none of them needed it, but it seems certain from their testimony that at the end of three weeks in all cases the scabs had fallen, and small, round cicatrices alone remained. At the end of a month, or from a month to five weeks, several of them applied for advice because the scars were again becoming sore, and at the expiration of two months it was quite certain that ten out of the twelve had indurated chancres on their arms.

In 1873, Mr. Hutchinson, treating further of the same subject, as illustrated in other series, wrote:

"The cases recorded show conclusively that, if the patient be

susceptible to vaccination, the vesicle may pass through all its stages in the most characteristic manner. Then, after healing of the vaccination-sore, and at the end of about a month from the inoculation, the syphilitic virus begins to show its effects and the scar becomes irritable, inflames, and indurates. Although this course is the usual one, it is not invariable. . . . In these exceptional cases the vaccination-sore never heals and the pus-scab which forms over it combines with the inflammatory swelling around to conceal the nature of the specific changes which subsequently occur. Should the vaccination not have taken, it is usual for the puncture to heal and for the patient to think no more about it until induration occurs at the end of the month."

Fournier speaks at very considerable length to the same effect on the great value of the incubation stage in the diagnosis of vaccinal syphilis.

The recent inoculation of the anthropoid apes has opened up a new field of study. Metchnikoff and Roux ⁴ report twelve successful inoculations, seven from human syphilis, upon chimpanzees. In these cases the incubation period is reported in six as 22, 22, 26, 33, 35, and 37 days, an average of between 29 and 30 days, and none below 22 days.

There are numerous other inoculations upon other apes in which the success was open to question. These inoculations of human virus on chimpanzees were recognized as successful by Fournier and other competent authorities. Only those cases are included here in which the successful inoculation of syphilis was undoubted.

Lassar's first inoculation ⁵ began to show reaction at the point of inoculation at the end of fourteen days.

In January, 1904, a second chimpanzee was inoculated with material from the first. The little cuts and punctures healed without visible trace and after the lapse of the second week the primary sign developed.

Neisser's inoculation period on a chimpanzee was from June 17 to June 30, 1904, when a slight redness began to be visible.⁶

In these animal inoculations, the incubation stage corresponds most closely with the human inoculations.

In none of the experimental inoculations upon men or monkeys does the incubation extend beyond 42 days. In regard to the cases

⁴ *Annales de l'Institut Pasteur*, November, 1904, 657, 671.

⁵ *Berliner Klin. Wochens.*, December 28, 1903.

⁶ *Deutsche Med. Wochens.*

which have reached 60 and 70 days, all rest upon clinical observation. Personally, I can but think that they were probably cases of accidental inoculation. Dr. Taylor has taught us that such accidental inoculations upon the genitals occur, and such accidental inoculations seem much more in accord with nature's laws than that a virus should lie dormant three or four times its ordinary period.

I cannot help quoting a sentence from Bumstead:

"Clearly occasional exceptions, even if well established, should not be allowed to detract from the importance of a pathological law known to be generally true."

These cases of inoculation are not sufficiently numerous to allow us to feel that they represent all possible variations in the incubation—(but they certainly allow us to deduce a working hypothesis).

So far as experimental inoculation is concerned we are justified in believing that the true chancre has always a period of incubation.

That the period of incubation varies within rather wide limits. That it never falls below fifteen or possibly thirteen days—and that forty-two days is the widest limit.

The inoculation of the anthropoids and the possibility of the discovery at last of the bacteriological entity of the disease allows us to hope for even greater certainty in the future.

DISCUSSION.

DR. HYDE said he was probably voicing the opinion of every competent authority on this subject in agreeing with Dr. Post that the statements made by dispensary patients and persons of loose habits furnished very uncertain data from which to draw conclusions as to the incubation period of syphilis. There was, however, a class of patients who gave us valuable and reliable data, namely, physicians and nurses who were accidentally inoculated with syphilis. The speaker said that with the aid of his colleague he had recorded more than two hundred cases of physicians and nurses who had been the victims of extra-genital chancres, and the period of incubation in those cases coincided very closely with the conclusions reached by Dr. Post.

In two of his cases, Dr. Hyde said, both physicians, marked septic symptoms had accompanied the specific infection, leading to the belief that ordinary pyogenic organisms had gained entrance into the system at the same time with the syphilitic germ and had, perhaps, to some extent modified the incubation period. In both cases the patients were confined

to bed, with fever and great depression, and the axillary glands were enlarged and filled with pus. In one the symptoms were so severe that a fatal issue was feared. In both of these two exceptional cases the eruptive symptoms were somewhat atypical, but the period of incubation was distinctly within the lines suggested by the reader of the paper.

DR. A. RAVOGLI said that, according to his observations, based upon the statements of intelligent patients, the incubation period of syphilis ranged between twenty-one and twenty-seven days. In the cases that had been reported with an incubation period of only three or four days he felt convinced that a mistake had been made, and that the sore was a mixed one, the chancroidal features of which gradually disappeared, leaving the indurated chancre behind.

One factor that had not been touched upon by the reader of the paper was that the incubation period probably depended to some extent upon the quantity of the virus or spirillæ or germs with which the patient became inoculated. Upon this basis we could explain the shortening of the period of the incubation of syphilis in the chimpanzee, because in these artificial inoculations a large quantity of the virus would probably be introduced.

DR. ROBERT W. TAYLOR said that the cases on record in which the incubation period of syphilis was given as ten days or less were, perhaps, those based upon the presence of broken down herpetic vesicles, or slightly indurated tears or chafes, which were mistaken for beginning chancre. At all events the question would probably soon be definitely answered by the results of the experiments that were now being carried on with the anthropoid apes.

DR. POST, in closing, said that cases in which a very long period of incubation was given—sixty or seventy days—should be accepted with caution, even from the best authorities. The possibility of accidental inoculation should never be lost sight of.

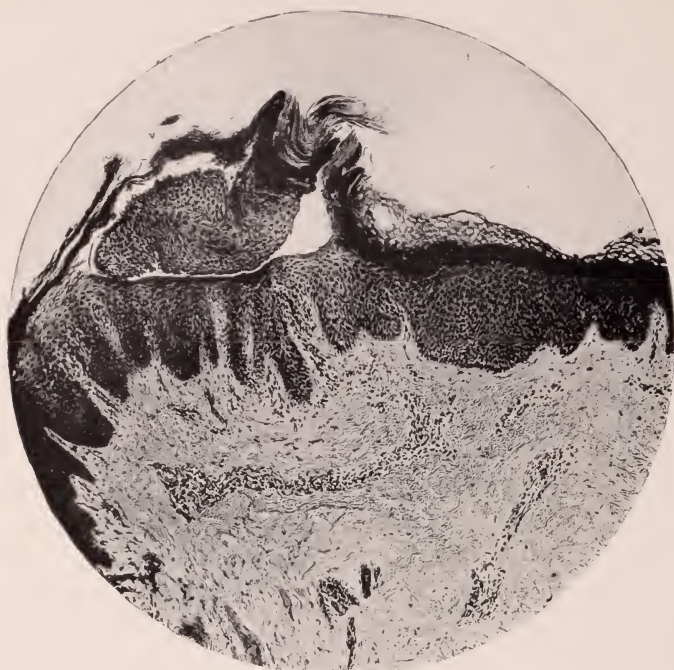


Fig. 1



Fig. 2



Fig. 3

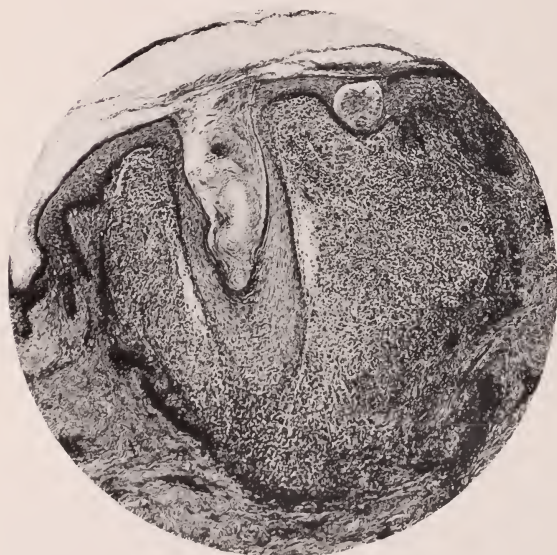


Fig. 4



Fig. 5

ARSENIC IN PITYRIASIS RUBRA PILARIS. (*Devergie*).*

By M. L. HEIDINGSFELD, M.D., Cincinnati.

THE reports in the literature on the therapeutic action of arsenic in the treatment of pityriasis rubra pilaris are almost as varied and interesting as the efforts on one hand to give to this affection, which first received classic distinction from Devergie,¹ in 1857, and from Besnier² in 1889, an identity, and, on the other, to trace a relationship to lichen ruber. In the relatively few cases in which arsenic has been administered, the opinion prevails that the drug possessed decidedly unfavorable properties in marked distinction to its favorable influence on lichen ruber acuminatus, a clinical observation which has been employed to differentiate these affections from each other in opposition to their strongly urged identity by Kaposi³ at the International Dermatological Congress of 1889. If the position assumed by Kaposi is conceded to be correctly taken, the analogy of the affection to lichen ruber planus is open to serious question, because Kaposi⁴ and some of his followers believe that lichen ruber acuminatus is a sub-form of lichen ruber planus. He expressly states (p. 460): "Although both of these forms (lichen ruber planus, and acuminatus), differ from each other in the character of their appearance and course, yet both, as I have already established in 1876 from clinical observations and pathological investigations, present essentially only one process. The papules of lichen ruber acuminatus when undergoing involution (under arsenical medication) take on the exact appearance of lichen ruber planus." Max Joseph,⁵ in his investigations on lichen ruber planus, verrucosus, and acuminatus, covering a period of eight years, remarks: "The clinical picture of lichen ruber is in every respect well defined. Even though there be many minor differences, the general characteristics of this affection are on the whole well defined from all others. Only a few details are open to question, and, speaking generally, we may state that the universal consensus of opinion indicates that there is clinically only one pathological process, designated as lichen ruber, and this is separated into several subdivisions, according to the preponderance of this or that

* Presented to the Fifteenth International Medical Congress, Lisbon, Portugal, April 19-26, 1906.

group of symptoms, which we term lichen ruber planus, acuminatus, or verrucosus. It is my purpose in this undertaking to show, by histologic investigation, the narrow connections that exist not only between the subforms of lichen ruber (planus et verrucosus), but also of pityriasis rubra pilaris and lichen ruber acuminatus." Mracek,⁶ in his handbook on diseases of the skin, states that the therapy for lichen planus and acuminatus is the same, with arsenic as fundamental to each. Hebra and Kaposi administered as many as 4000 Asiatic pills, and twelve per diem, containing 19.5 of arsenious acid per 1000 pills, to the cases of lichen ruber acuminatus. Mracek makes no apparent distinction between lichen ruber acuminatus and pityriasis ruber pilaris (Devergie), and furthermore maintains that lichen ruber acuminatus is merely a subform of lichen ruber planus. He states that Kaposi admonishes against the danger of subcutaneous injection of arsenic in the treatment of these conditions, and remarks that recurrences thereafter are frequent. Neisser⁷ demonstrated a case of pityriasis rubra pilaris (Devergie) in a boy four and one-half years of age, before the Breslau Dermatological Society on November 11, 1902, which received unsuccessful arsenical treatment for one month, and remarked that refractory nature of this affection to arsenical treatment, histological differences, and its essentially benign character served to differentiate it from lichen ruber acuminatus, Hebra. Hügel⁸ reports a case of pityriasis rubra pilaris in a man aged seventy-two years, in which arsenic was unsuccessfully administered hypodermically the first ten days, and recovery effected a month subsequently by means of ointments and medicated baths. Six weeks later patient suffered a recurrence, from which he made a tedious recovery, along the same lines of treatment, showing an absolute intolerance to arsenic in every form.

West⁹ reports a case of two years' duration in a male aged fifty-eight years, in which Fowler's solution in 15 minim doses three times daily was administered without improvement. The therapy of pityriasis rubra pilaris, as gleaned from cases in the literature, which are well defined from pityriasis rubra of Hebra, and lichen acuminatus of Kaposi, indicates that the best results are achieved by means of such mild emollients as boro-vaselin and the free use of baths. (Palm,¹⁰ Hügel,⁸ etc.). That arsenic in its various forms is ineffective or prejudicial. Heller¹¹ is one of the comparatively few who has reported favorable results from arsenic, which was administered internally in a case which he reported from photographs before the Berlin Dermatological Society, March 6, 1900. The general

view of the treatment of pityriasis rubra pilaris is well presented by Stelwagon,¹² when he states that it "consists essentially of the administration of tonics, when necessary, sudorifics, and externally bran, starch, or alkaline baths, and oils or ointment applications. Arsenic has no special value in this disease; on the contrary, it occasionally does harm, and, if tried, it should be cautiously and preferably as the solution of sodium arsenate."

My personal experience with this affection is limited to three cases, all adult females. Mrs. S. K., aged forty-one years, came to my notice on September 16, 1898; Miss A. R., aged nineteen years, who presented herself on October 5, 1902; and Mrs. E. H. G., aged thirty-two years, who presented herself on December 17, 1905. I beg to present the most recent case first, because it presents the most striking therapeutic features.

CASE 1. Mrs. E. H. G., aged thirty-two years, noted a slight eruption simultaneously on the dorsum of left hand and over the right knee on August 26, 1905, which, for the time being, caused the patient little or no subjective distress. She immediately called her family physician's attention to the condition, and in the course of a few weeks it developed rapidly and spread over a large portion of the extremities and body. Subjective symptoms in the form of burning, itching, with occasional attacks of rigor, with a sense of swelling, distention and formication on the part of the skin, which disturbed sleep, impaired the appetite, and induced malaise, distress, and a debilitated and weakened general condition. A consulting specialist pronounced the affection lichen ruber planus, and arsenic in the form of Fowler's solution was prescribed. After an interval of several weeks, during which the affection steadily advanced, and the symptoms became more intense, the patient was placed under the care of two specialists, who concurred in the former diagnosis, and prescribed arsenic in the form of Asiatic pills for a period of six weeks, beginning with nine per day and increasing to fifteen pills per day, without affecting any material change. The treatment was supplemented with astringent and carbolized lotions and alkaline baths, which afforded some temporary relief. Ointments were also tried, but proved intolerant, and apparently aggravated the condition. The eruption steadily advanced, and the subjective distress increased, until sleep, appetite, and the patient's general condition became greatly disturbed and impaired. On the date of her first visit, December 17, 1905, patient presented essentially all the characteristics of a well defined pityriasis rubra pilaris. Folliculitis was present to an exquisite degree on the dorsal aspect of all of the first phalanges

of the metacarpals, and to a moderate extent on some of the second. The scalp was the seat of a fine, branny desquamation. The body and extremities were extensively, almost universally, involved with a dull red eruption, which, upon closer observation, revealed itself to be follicular in character. The lesions were for the most part confluent, forming irregular diffused patches, separated by islands of intervening normal skin, which was studded with isolated lesions involving a single follicle, or a few confluent follicles. The individual lesions were round, not polygonal, as in lichen ruber, forming a somewhat shiny, but non-infiltrated, red zone around the centrally placed follicle. The purplish hue of lichen planus was entirely lacking, and likewise there was no reticulation, or cigar-ashlike accumulation of scales upon the surface of any of the lesions. A few lesions which were in process of involution disappeared without sepia-brown pigmentation, and only a slight degree of discoloration. The flexor surfaces remained smooth, each lesion becoming the site of a superficial thin scale, loosely adherent to the follicle, whereas the lesions on the extensor surfaces involuted with the formation of a small, horny plug, not unlike keratosis follicularis of White, or some of the milder forms of Darier's disease. The palms of the hands and the soles of the feet were the seat of very extensive keratoses and the site of numerous deep and painful fissures. The nails of the fingers and toes were only slightly involved in the keratotic process.

Personal experience in past cases impressed me that three remedies are particularly efficacious in pityriasis rubra pilaris, namely, tar locally, arsenic hypodermically, and internally intestinal antiseptics, with a well-regulated diet. The treatment instituted in the case consisted of bi-weekly injections of 25 minims of 10% Atoxyl (0.15), the frequent external application of liquor detergens, in the form of a lotion, and two grains each, three times daily of beta naphthol and guaiacol carbonate internally. The first application of the tar lotion afforded the patient immediate relief, and the eruption showed no increase, and the symptoms materially decreased, with the inception of the changed therapy. On December 30th sleep had become natural, appetite restored, and the subjective symptoms allayed, and the mother of the patient, who had been in constant attendance upon her daughter for several months, took her departure on January 6, 1906. The plantar and palmar keratoses disappeared, and the eruption materially faded, and only a faint discoloration of the skin marked the former seat of eruption. Patient on this date temporarily discontinued, on her own volition, the use of the lotion, with the result that the skin in a few days became slightly irritable. On January 17, 1906, one month after the treatment was instituted, patient was, to all appearances, perfectly restored to her

former good health, without incurring a relapsing symptom. Inasmuch as the patient persistently refused a photographic record, and the extirpation of an area of the affected skin, the case unfortunately lacks histologic record.

CASE 2. Miss A. R., aged nineteen years, presented herself October 5, 1902, with an eruption which began in May, 1902, on the buttocks and the small of the back, spread thence to trunk and extremities, involving chiefly the abdomen, breasts, thighs (inner aspects extensively, outer sparingly), flexor surface of the forearms extensively, extensor aspect sparingly, extensor aspect of arms extensively, flexor sparingly, waist, nates, and lower legs extensively on extensor surface, sparingly on flexor. The scalp and eyebrows were the site of diffuse, branny desquamation, which was accompanied with defluvium capillorum. There was a moderate degree of palmar, and plantar keratosis, with some thickening of the nails, folliculitis of the first phalanges, and the eruption presented the same general characteristics of the preceding case. A small area from the chest was excised for examination and showed the same general pathologic changes as described by Hartzell.¹³ The treatment instituted in this case consisted of 25 minims bi-weekly injections of 10% solution of cacodylic acid, internal administration of 4.0 of 3% solution of carbolic acid, well diluted, three times daily, a well regulated diet, and a 1% lotion of tar, in 15% glycerine and 25% alcohol. Patient showed improvement, with a prompt alleviation of her distressing symptoms, and was discharged well on November 28, 1902, without manifesting any subsequent recurrences.

CASE 3. Mrs. S. K., aged forty-one years, the earliest which came under my personal observation, was reported in the *Cincinnati Lancet-Clinic*,¹⁴ June 3, 1899, and from which the following report is taken: "At the date of her first visit, September 16, 1898, the patient stated that she had been indisposed for the past six or eight weeks, with anorexia and general malaise. Six weeks prior to the date of her first visit she began to be troubled with an intolerable itching of the palms of the hands and the soles of the feet. The pruritus spread to the extremities, face and body, and was accompanied over the palms of the hands and soles of the feet with a hyperkeratosis, and over the face, body, and extremities with erythema and desquamation.

On examination, large erythematous patches were present over the face, neck, and the extensor aspects of the legs and arms, which areas were covered with a furfuraceous desquamation. At first glance it appeared like an acute diffused inflammation of the skin, and recalled vividly the acute dermatitis that sometimes follows the local application of mercurial ointment. Close observation revealed the

chief disturbance to be around the individual follicles of the skin, the orifices being slightly raised, surmounted with a fine scale and surrounded by a narrow zone of redness. The close aggregation of the affected follicles gave a diffused red and scaly character to the affected area. The skin over the palms of the hands and the soles of the feet was greatly thickened and extensively fissured; the fissures were very painful, and, together with the pruritus, annoyed the patient excessively. Sleep was disturbed, appetite impaired, and temperature was 103° F. Mucous membranes were not involved, and showed neither erythema, vesicles, or papules. The dorsal aspects of the fingers manifested no particular involvement at this period.

The treatment at this time consisted of local applications of Wilkinson's ointment and the internal administration of salol, sodium bicarbonate, and salines.

In the course of a few days the temperature returned to normal, and the patient felt somewhat relieved of her general distress. The inflammation, however, continued to spread to new areas, the old showed no tendency to return to normal, and the pruritus and general distress, though diminished in intensity, continued to disturb the patient. A two per cent. beta-naphthol ointment, afterwards increased to six per cent., was substituted for Wilkinson's, and Fowler's solution was given internally, all with negative results.

The local application of a one per cent. carbolic-acid lotion, and dusting the body thickly with rice powder, failed to allay the pruritus, and patient was induced to seek relief by a brief stay in the Cincinnati Hospital.

The inflammation at this time had spread to hairy portions of the body, and had induced a pityriasis capillitii and a defluvium capillorum from the scalp, eyebrows, eyelashes, axilla, pubes, and general surface of the body.

On January 14, 1899, the following detailed observations were made:

Temperature normal.

Internal organs normal.

Urine normal. Specific gravity, 1018; reaction, acid; albumin, none; sugar, none; indican, none; sediment, none. Microscopical examination: No casts; no crystalline elements.

Hands: Skin over the palms very much thickened, showing a very high grade of hyperkeratosis. The surface is extensively furrowed by deep lines and painful fissures, from some of which ooze serum tinged with blood. The dorsal surfaces show a mild type of erythema and desquamation; no papular eruption over the dorsal aspects of the fingers. Nails are thickened, but smooth and regular in outline.

Forearm—Extensor aspect: Surface diffusely red; folds of the skin very prominent; some of the furrows between the folds very deep. Surface is covered with a deposit of fine scales, and skin is somewhat indurated. Flexor aspect: The follicles of the middle third are reddish in color, unduly prominent, and bear at their summits a scaly deposit. Follicles are discrete, and separated from each other by normal skin. Consistence of skin normal, and folds not prominent.

Elbow—Flexor aspect: Surface slightly scaly, and folds of the skin slightly prominent, but not so prominent as on extensor surface of the forearm. The keratosis, or what Unna¹⁹ is inclined to call psoriatic condition, is also less marked on the flexor aspect of the elbow than on the extensor surface of the forearm. Excoriations from scratching are present over the forearm.

Upper arm: The type of the eruption is follicular, and more distributed over the extensor than flexor surface. On the flexor aspect there are large areas of normal skin, showing no erythema.

Face: A diffused erythema is present around the lips and chin, involving the greater portion of the cheeks, and is slightly disseminated over the forehead. The affected areas show some desquamation, and slight infiltration and thickening of the epidermis. Ears are erythematous, and covered with eczematous crusts. Scalp is affected with a severe type of pityriasis capillitii and defluvium capillorum. Eyebrows are filled with fine scales, and, together with the eyelashes, show extensive loss of hair. Mucous membranes pale, but otherwise normal.

Back: Skin erythematous, thickened, and psoriatic, and folds very prominent. Small islands of normal skin intervene and crusts and excoriations from scratching everywhere abundant.

Abdomen: The abdomen at this time presents the most recent eruption, of about four weeks' duration. Its general type is follicular, some of the affected follicles coalescing to form larger plaques. The discrete follicles are round in outline, reddish in color, flat in appearance, and but little raised above the level of the surrounding skin. Their outline is sharply defined, they contrast strongly with the surrounding skin, and show no dells or central depression, as in lichen ruber planus. The opening into the follicle is prominent, and is often filled with extraneous matter. Surface is slightly rough to palpating hand.

Buttocks: Erythema, infiltration, and desquamation marked. Folds of the skin are prominent, and excoriations from scratching are numerous.

Lower extremities: Erythema very diffused, skin is thickened and covered with scales, and the folds are everywhere unduly promi-

ment. Crusts and excoriations are very numerous, and there is no normal skin anywhere.

Soles of the feet showed marked hyperkeratosis, and numerous furrows and fissures. Nails are thickened, irregular, and covered with crustaceous deposits.

There are no sepia-brown pigmentations anywhere on the body. Patient's general condition is very much impaired, nutrition is poor, and emaciation marked. Patient complains of severe burning and pruritus, and states that she is unable to properly perform her customary duties. At this period the treatment was changed to the deep injections of sodium arsenate, one gramme of a one per cent. solution being injected daily for a period of thirty days, and, intermittently, for some time afterward. These injections were absolutely barren of results, and the palliative ointment and lotion were continued. In February a ten per cent. preparation of naftalan in petrolatum was ordered, and this agent has afforded her more relief than any therapeutic measure thus far administered, although it has not checked the steady progress of the disease, nor restored any of the affected areas to a normal condition. Sulphur baths were given the patient, with no benefit whatever. At the present time the affection has spread over the entire body, and, with the exception of a few small areas over the chest, where the type is still follicular, it has assumed a psoriatic character. After various remedies were used, with equally indifferent results, 0.12 doses of carbolic acid, well diluted, were administered, a five per cent. ointment of pine tar was applied locally, and 0.15 of cacodylic acid was injected hypodermically. The improvement following this change was very marked and prompt. The subjective symptoms were soon allayed, the skin became smooth in appearance, the eruption faded, and the general condition was greatly improved. After an interval of two weeks the ointment was poorly tolerated, flexor surfaces, particularly opposed cutaneous areas, became macerated and painful, a mild form of lotion of tar was then substituted, and patient made a complete and uninterrupted recovery in the course of six or eight weeks.

It is evident from the foregoing cases that the successful management of this affection, characteristically refractory in two of the reported cases, is dependent on the administration of intestinal antiseptics, combined with a carefully regulated diet, the external application of tar, in appropriate form, with the hypodermic administration of arsenic in the form of atoxyl or cacodylic acid. Inasmuch as all three measures were employed in each given case, it is difficult to determine whether each of these measures, singly or all collectively, were efficacious. It is of interest to note that arsenic, when adminis-

tered internally in excessively large doses, in the form of Fowler's solution, and the Asiatic pill, and when injected in the form of sodium arsenate, exerted no favorable effect on the course of the affection. This empirical observation should in itself, aside from marked clinical differences, remove the affection from the various forms of lichen ruber, which are, without exception, favorably influenced by this form of treatment; of equal interest is the observation that the hypodermic injections of arsenic in the form of atoxyl and cacodylic acid did not exert any unfavorable influence, as maintained by many authors.

The pathology of the two cases which were examined presented the changes which have generally been accredited to the affection, the most prominent of which is the intra-follicular keratosis. (Hartzell,¹³ Pinkus,¹⁷ Morton,¹⁸ Jordan¹⁹).

Case 3 presented an anomaly, which I have never encountered in any researches in this or any other affection. Many of the hair follicles in a portion of the affected skin in a comparatively late stage of involvement, resembling keratosis follicularis removed from the extensor aspect of the forearm, were observed lying freely on the surface of the epidermis covered with a thin layer of stratum corneum. Numerous hair follicles could be readily traced through this process of extrusion from skin, from a normal position, to that of shrinking from the surrounding connective tissue, and other adjacent structures, with the formation of larger and smaller retraction spaces, which often contained cellular elements and inflammatory products, until it was partially or completely extruded upon the surface of the epidermis. The cavity formed by its removal was invariably in a corresponding state of partial or complete repair. This remarkable pathologic change can only be explained from natural causes, the material having been carefully hardened in successive alcohols, and the detail of the examination was conducted with sufficient care to preclude the possibility of an artifact. It is, moreover, quite inconceivable that such a change could be effected by other than natural causes.

Both cases manifested one change to a very marked degree, which is at variance with the report made by Liddell,¹⁶ who states that "the arrectores pilorum muscles exhibit atrophic changes, their fibers being thinner and their nuclei smaller than normal." On the contrary I found the arrectores pilorum invariably greatly hypertrophied, possessing greatly increased length and breadth, and often distributing branches, in a dendritic manner, each of which would do more than credit to a normal arrector pilus.

This hypertrophy of the arrectores pilorum is readily explained on clinical grounds by the creepy sensation which the patient almost constantly experiences, with a resulting cutis anserina, and excessive contraction of the hair muscles. It is histologically present in various dermatologic affections, when cutis anserina is pronounced and more or less constant.

To recapitulate: Pityriasis rubra pilaris (Devergie) possesses a definite entity in the minds of the majority of dermatologists. Some attribute to it an identity with lichen ruber acuminatus. (Kaposi). Its position is, therefore, still sub-judice. Lichen planus, lichen verrucosus, and lichen acuminatus are at the present day given a common relationship, the two latter being regarded as subforms of lichen planus. All are reputed to be favorably influenced by arsenical treatment in every form, a clinical fact which serves many to definitely remove lichen acuminatus from pityriasis rubra pilaris. The latter disease is regarded to be unfavorably influenced by arsenical treatment in every form. Experience in three cases conforms to this in respect to the internal administration of arsenic and the hypodermic injections of sodium arsenate. The disease is favorably influenced by hypodermic injections of atoxyl and, to a lesser extent, by cacodylic acid. Lotions of tar, dietary regimen, and intestinal antiseptics are very useful adjuvants. Pityriasis rubra pilaris is, from a clinical and therapeutic standpoint, well differentiated from lichen ruber acuminatus. It is essentially a folliculitis, and the chief pathologic change is an intrafollicular keratosis. In one case, in which the pathological examination was made during the clinical stage of keratosis follicularis, hair follicles were found in various stages of extrusion upon the free surface of the skin, which constituted a unique pathologic finding. Contrary to the observations of some authors, the arrectores pilorum are constantly in a state of hypertrophy, which is in natural accordance with the clinical symptoms, rigor, and cutis anserina, which accompanies the affection.

LITERATURE.

- ¹ Devergie, *Traite' Pratique des Maladies de la Peau*, 1857.
- ² Besnier, *Ann. de Derm. et de Syph.*, Tome x., April, May, June, 1899.
- ³ Kaposi, *Diseases of the Skin*, Trans. Johnson, 1890, p. 337.
- ⁴ Kaposi, *Hautkrankheiten*, 1893.
- ⁵ Joseph, *Arch. f. Derm. Syph.*, xxxviii. p. 1, 1897, on Lichen Ruber, an address before the Third Internat. Derm. Congress, London, 1896.
- ⁶ Mrazek, *Handbuch der Hautkrankheiten*, Wien, 1904.

PLATE XXXII.—To Illustrate Dr. Jay Frank Schamberg's Article.



⁷ Neisser, *Monatsh. f. Prak. Derm.*, vol. xxxiv. p. 580, and *Arch. f. Derm. u. Syph.*, vol. liii. p. 389.

⁸ Hügel, *Münch Med. Woch.*, No. 50, 1900.

⁹ West, *Brit. Jour. Dermat.*, 1905, p. 27.

¹⁰ Palm, *Monatsh. f. Prkt. Derm.*, vol. xxxviii. p. 136.

¹¹ Heller, *Monatsh. f. Prkt. Derm.*, vol. xxx, 1900, p. 424.

¹² Stelwagon, *Diseases of the Skin*, 1903, p. 243.

¹³ Hartzell, quoted by Stelwagon, *Diseases of the Skin*, p. 242.

¹⁴ Heidingsfeld, *Cin. Lancet and Clinic*, June 3, 1899.

¹⁵ Unna, *Histopathologie der Haut.*, 1893, p. 298.

¹⁶ Liddell, *Brit. Jour. of Derm.*, 1895, p. 283.

¹⁷ Pinkus, *Archiv. f. Derm. u. Syph.*, vol. li, p. 434.

¹⁸ Morton, *Brit. Jour. Derm.*, 1896, p. 255.

¹⁹ Jordan, *Monatsh. f. Prkt. Derm.*, vol. xxiv., 1897, p. 206.

DESCRIPTION OF PLATES.

PLATE XXIX. FIG. 1.—Pityriasis rubra pilaris, from Case 3. Hair follicle extruded from its normal position in the tissues and lying freely on the surface, covered with a thin layer of stratum corneum. Taken from the forearm during the clinical stage of follicular keratosis. Winkel obj. 3. Comp. oc. no. I.

FIG. 2.—Same as Fig. 1. Extruded hair follicle on free surface of the skin, with intrafollicular keratosis, in cross section. Winkel obj. 3. Comp. oc. no. I.

PLATE XXX. FIG. 3.—Pityriasis rubra pilaris. Hypertrophied arrector pili.

FIG. 4.—Intrafollicular keratosis, and extensive perifolliculitis.

PLATE XXXI. FIG. 5.—Pityriasis rubra pilaris. Hypertrophied arrector pili. Same as Fig. 3, more highly magnified. Winkel obj. 5. Comp. oc. no. 3.

A CASE OF LUPUS ERYTHEMATOSUS IN EARLY CHILDHOOD. A CLINICAL MEMORANDUM.

By JAY FRANK SCHAMBERG, A.M., M.D., Philadelphia.

THE following case is deemed worthy of report because of the extreme youth of the patient and the rarity of lupus erythematosus at this period of life. A casual survey of the literature discloses the fact that very few cases of lupus erythematosus have been recorded in children under ten years of age. Kaposi's case of a child of three years of age appears to be the youngest instance on record. Crocker states that his youngest patient was six years of age. Sequeira in a study of 71 cases at the London Hospital found eight patients under the age of fifteen, the youngest being eleven years old. More recently the same observer met with two cases in sisters one seven years of age and the other ten. Jamieson observed lupus erythematosus in a child eight years of age.

The patient referred to in this brief memorandum was four

years and three months old when the disease began and is at the date of this writing scarcely five years of age.

The patient is Mildred F., a stout, robust child of almost five years of age. She has enjoyed excellent health; had an attack of whooping cough when three months old and measles when one year old. She is of compact build, has a rosy complexion, blue eyes and blond hair. No glandular enlargement. Mother and father have always enjoyed good health; one other child is likewise well. The father's sister died of pulmonary tuberculosis at the age of fifteen years and the mother's uncle died of the same disease at the age of thirty-eight. The patient, however, never lived in the same household with these persons.

The disease was first noted in the patient in September, 1905, that is, when the little girl was four years, three months old. The first lesion appeared on the right cheek in the form of a "pimple," which resembled an insect bite. This gradually increased in size and two months later another lesion appeared on the left cheek; in two or three months the third patch appeared on the left cheek. At the present time there is situated on the left cheek an annular patch about two centimeters in diameter. This has a reddened, slightly elevated border through which visible coursing blood vessels are seen. The center is paler than the surrounding healthy skin and shows slight atrophic scarring. In the neighborhood of this patch are several small millet-seed sized patches of recent development. Upon the right cheek is a larger patch of a serpiginous outline, with a clear center and a vascular elevated border. There is no dilatation of sebaceous glandular orifices. The case represents the vascular type of the disease.

The patient was exhibited at a recent meeting of the Philadelphia Dermatological Society.

SOCIETY TRANSACTIONS.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

April 17, 1906.

The regular monthly meeting of the Philadelphia Dermatological Society was held Tuesday evening, April 17, 1906, in the amphitheater of Jefferson Medical College, Tenth and Lansom streets, Philadelphia, Dr. H. W. Stelwagon presiding.

A Case of Dermatitis Exfoliativa was shown by Dr. J. F. SCHAMBERG. The patient was a man, thirty-two years of age, a native of Scotland, and a worker in a boiler foundry. The affection was generalized and had persisted for about ten months with periodic exacerbation. The involvement of the head and legs was especially marked. There was considerable swelling around the knees. There was very little itching according to the patient's statement. Ectropion of both lower eyelids was observed. There was also involvement of the nails.

An Obscure Case of the Toxic Erythema Group was presented by Dr. ROYER. The patient, a very young girl, was at this time an inmate of the Municipal Hospital for Contagious Diseases. The family history was negative as regards the father of the patient, but the mother gave a history that was decidedly syphilitic. Four months previous to this meeting the child developed a lesion on the upper lip with swelling of the glands at the angle of the jaw. The family physician regarded this as an extragenital chancre and promptly instituted appropriate treatment. A generalized eruption was observed for a few days. In the early part of the present month (April) the patient complained of having contracted a bad "cold" and took large doses of quinine for the same. The attending physician examined the throat and was led to entertain the possibility of diphtheria. Upon disrobing the child incident to injecting the antitoxin, he observed a generalized eruption made up of groups of vesicles, papules, and pustules most marked upon the face and back. All the lesions were noticed to have a distinct inflammatory areola. Lesions of a similar nature were found upon the uvula and soft palate. Up until the time of its presentation the condition had existed ten days, and was undergoing spontaneous involution. The grouping of the lesions suggested syphilis.

Dr. SCHAMBERG believed the condition to be one of the toxic erythemas.

Dr. VAN HARLINGEN ventured the suggestion that it might possibly be

considered as an acute type of dermatitis herpetiformis, although he was frank to admit that this conclusion was by no means positive.

A Case of Verucca Juveniles previously exhibited by Dr. STELWAGON was again shown in order that the Society might note the disappearance of the lesions under treatment by the internal administration of magnesium sulphate and Fowler's solution.

A Case of Lupus Erythematosus was shown by Dr. E. J. STOUT. The patient was a woman, forty-five years of age. There were two typical circinate lesions on the right cheek below eyelid which had lasted four years. The family history was negative. There had been no improvement under treatment.

A Case of Lupus Erythematosus was exhibited by Dr. STELWAGON. The patient was a middle-aged man. The lesions were situated on the face and ears. There was considerable scarring on the face. The family history was negative. The lungs showed fibroid changes.

Another Case of Lupus Erythematosus was shown by Dr. STELWAGON. In this instance the patient was a young woman and the disease was situated on the face and neck. Its appearance closely resembled that of seborrhoic eczema in some places. The duration was five years. The family history was negative.

A Marked Case of Epithelioma of the Face and Neck was shown by Dr. WALLIS. The X-ray had been employed but with no effect. The patient since consulted a quack who had removed the growth by a plaster, but with marked scarring and disfigurement.

A Case of Erythema Multiforme Bullosum was presented by Dr. C. N. DAVIS. The patient was a Russian girl, nine years of age. On admission to the hospital she gave a history of obstipation covering a period of three days. At this time there was a multiform eruption made up of gyrate and circinate bullous and papular lesions. This eruption underwent involution within a week. The patient now returns with a recurrence of the disease. The blebs were especially marked on the forearms and back of the neck.

A Case of Darier's Disease was exhibited by Dr. E. J. STOUT. The patient was a middle-aged man and had had the condition for a period of twenty years. He had been under the observation of a number of the members at the University Hospital for some years. At present there were large brownish hypertrophic and scaly areas on the chest, back,

and pubis. On the hands the disease was distinctly papillary. There were some umbilicated papules especially on the back of the neck.

A Case of Lichen Planus Involving the Mucous Membrane of the Mouth was shown by Dr. SCHAMBERG. The patient was a young man. The disease had lasted one week and was present also on the penis and scrotum.

A Case of Purpura Following the Administration of Potassium Iodid was brought before the Society by Dr. C. N. DAVIS. The patient had had swelling and oedema of the legs prior to the appearance of the eruption. The lesions appeared suddenly and disappeared very slowly. A recurrence occurred when the patient began to go about on her feet. Ecthyma was present on the arm.

An Extensive Syphiloderm was presented by Dr. STELWAGON. The patient was a middle-aged woman. The face, hands, and arms were especially involved. The case presented many features not unlike psoriasis. There was considerable scarring.

A Case of Tinea-Tricophytina Occurring on the Hand was shown by Dr. C. N. DAVIS. The patient was an Italian barber, twenty-nine years of age. The disease consisted of a deep-seated, dollar-sized lesion with elevated margins. It was inflammatory in character and considerably infiltrated. There was slight crusting.

A Case of Possible Lupus Erythematosus was exhibited by Dr. STELWAGON. The disease consisted largely of scar-tissue and was situated upon the nose. The duration was three years.

S. H. BROWN, M.D., *Reporter.*

MANHATTAN DERMATOLOGICAL SOCIETY.

48th Monthly Meeting, held February 2, 1906.

Dr. ROBERT ABRAHAMS, presiding.

Prurigo Mitis. By Dr. R. ABRAHAMS.

Child, two and one-half years old, American, and giving a history of repeated attacks of urticaria. The extensor surfaces of the forearms, arms, thighs, legs, and the buttocks are covered with pale red papules, many of which are crowned with blood crusts. Hard papules still invisible are felt everywhere under the affected skin; the popliteal and flexor elbow spaces, axillae, and femoral triangles are free. The axillary and inguinal glands are enlarged and hard.

On account of the absence of some of the characteristic features of prurigo, especially the beginning of the disease in infancy, and the persistent infiltration of the skin, it was the opinion of most of those present that the case was rather to be classed as a chronic papular eczema than as a true prurigo.

Multiple Scleroses of the Glans Penis. By Dr. WM. S. GOTTHEIL.

Henry W., twenty-one, German. On January 11th of this year patient noticed a small swelling on the penis; one week later several sores appeared on the left side of the organ; subsequently additional closely aggregated lesions encircled the upper part and left side of the sulcus. Right inguinal adenopathy since January 23rd; no roseola or pharyngitis. Within the last few days some distinctly herpetic lesions have appeared on the sheath of the penis. Patient states that he had three or four similar attacks a year ago. There are now ten distinct lesions arranged in collar form in the sulcus. They are nodular, all distinctly indurated, painless, and with eroded surfaces. During the two weeks of observation the lesions had not changed at all, save to increase a little in size; treatment, boric acid ointment.

Dr. Ochs stated that when he first saw the case his diagnosis was herpes; but the absence of change, and the increasing induration led him to the diagnosis of chancres. Drs. Parounagian and Oulman regarded it as a mixed infection. Dr. Pisko called attention to the difficulties attendant upon palpation as a diagnostic criterion when the lesions were situated in the sulcus; with Dr. Oberndorfer he regarded the lesions as infected and moderately indurated chancreoidal sores. Dr. Gottheil added that when first seen the lesions were not herpetic erosions; they were indurated tumors, distinctly eroded on their surfaces, and all apparently of about the same age. He doubts the history of successive crops, and regards the lesions as herpetic vesicles infected with the syphilitic virus.

Recurrent Alopecia Areata. By Dr. L. BOWMAN.

Female, thirty-six, German. The alopecia began two years before, and had been treated with carbolic acid and the other usual remedies. The results had been good; there had been a vigorous growth of lanugo over the patches. As soon as treatment was stopped, however, the alopecia began again. There had been at least three relapses during the two years that she was under treatment at the clinic. At the present moment about two-thirds of the scalp is entirely denuded; on the patches resubjected to treatment lanugo is appearing. Suggestions as to treatment were asked for.

Dr. FANONI said that he had found nothing better than vigorous employment of a hard brush regularly, and bichloride washes, as strong as the patient's skin would bear. Dr. Ochs suggested 10% chrysarobin ointment and hot fomentations, which had given him good results in several cases. Dr. Geyser employed the faradic brush, and Dr. Oulman the high frequency current. Drs.

Weiss and Gottheil agreed that it made little difference what form of stimulation of the skin was employed. This case seemed to be on the boundary line between the benign cases of alopecia areata, which get well in time under almost any form of treatment, and the malignant cases, which progress no matter what treatment is used. The age of the patient, and the course of the disease so far rendered it probable that complete and permanent alopecia would be the final result.

A Case for Diagnosis; Lupus Vulgaris or Syphilis? By Dr. R. ABRAHAMS.

Female, twenty-eight; family and previous history negative. Five months ago she noticed a small nodule on the tip of her nose, and others soon appeared. At present the left ala and the tip of her nose are studded with small, sharply circumscribed reddish nodules; and between them there is a considerable amount of scar substance showing recent tissue destruction. The process has extended into the inner surface of the left ala, where there is ulceration with the production of flabby granulation tissue. On the roof of the mouth there is an isolated lesion resembling the condition seen in the nose.

Dr. WEISS: The lesions of the mouth and the nose belong to one and the same process. The age of the patient, the length of time that the disease has taken to reach its present extent, and the appearance of the eruption would lead him to diagnosis a tubercular syphilide. In this opinion various other members concurred.

Trichorrexia Nodosa. By Dr. L. OULMAN.

R. C., female, twenty-one, born in New York. For the past six years has noticed that her hair was extremely dry, tended to split at the ends, and not only fell out excessively, but broke off also. Her scalp is normal; there is not a trace of seborrhoea. The hairs themselves are dry and brittle, and break easily; many of them are split for a long distance at their ends; and many others show the characteristic nodules of trichorrexia nodosa. Under 3% resorcin in glycerine and castor oil the condition of the hair improves; but it returns to its original state as soon as treatment is discontinued.

Leucoplakia Buccalis et Lingualis. By Dr. OBERNDORFER.

Male, forty-two; chancre fifteen years ago. When first seen there were very large leucoplastic patches on the tongue and the inner surface of the cheeks. He had been ineffectually treated with mercury by inunction and immense doses of iodide. Under intramuscular injections of mercury salicylate the improvement has been so prompt and marked that there is now comparatively little left of the lesions, and their complete disappearance will doubtless soon ensue. The local treatment had been nitrate of silver, 5% chromic acid, and alkaline washes.

Leucoplakia Buccalis et Lingualis. By Dr. OULMAN.

Case similar to the above, but as yet untreated, and with very marked lesions.

Dr. Pisko: In the leutic as well as in the non-leutic leucoplakia there was no specific treatment; even in typical leutic leucoplakia, anti-syphilitic treatment usually failed. He regarded the first case as one of simple syphilitic glossitis rather than true leucoplakia.

Lichen Planus of the Penis. By Dr. ABRAHAMS.

K., thirty. Two years ago noticed a small bluish "line" on the penis, which gradually grew larger and assumed a circular form. At present there is a lesion the size of a ten cent piece on the glans, with a distinctly violaceous circular margin composed of minute, flat-topped, mosaically arranged papules covered with fine transparent scales, and with a central depressed and lighter colored area. There is not, and there never has been, any lesions elsewhere. The peculiar points of the case are the entire limitation of the process to the glans penis, and the very long duration of the process.

Raynaud's Disease. By Dr. ABRAHAMS.

Male, fifty-eight, Russian. All the toes of both feet have been markedly blue and tender for a year past. They are now in the condition of local asphyxia, and will doubtless go on to ulceration and spontaneous amputation. In this connection Dr. Gottheil showed photographs of two cases from the City Hospital in which several of the toes or a part of the foot had been lost from this affection, and which had cured themselves in this manner.

Secondary Rupial Syphiloderm. By Dr. OCHS.

H. S., male, seventeen. Chancre October 7, 1905, treated for two weeks, and pronounced cured. On January 10, 1906, three months post infectum, abundant papulo-pustular syphiloderm. The crusts left therefrom have remained, or have reappeared when removed. Under them the ulcerative process has continued, until now there are many scores of lesions over the body. Some of the rupial crusts are an inch and a half in size; under them are large and deep ulcerations. The patient is in bad physical condition, evidently suffering from septic infection as well as from his syphilis. It is a distinct case of malignant syphilis, with extensive pustular and rupial ulceration of the tertiary type three months after infection.

A. BLEIMAN, M.D., *Secretary.*

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

INFLAMMATION OF THE SKIN.

By HARVEY P. TOWLE, M.D., Boston.

Erysipelas, Treatment of, by Wölfler's Method. PAYR. (*Wien. Med. Wchnschr.*, 1905, lv., p. 1821.)

In 1888 Wölfler recommended, in an article on erysipelas, that one or two strips of plaster should be firmly applied about the inflamed area and later reported good results in 58 cases out of 60 treated in this way. It was noticed that the enclosed skin often became swollen and so œdematous that it hung over the encircling plaster. It was also noted that the rapid disappearance of the redness, the reduction of the fever and the limitation of the spread were striking. In 1892 Schneider advocated the substitution of collodion for the plaster, while a little later Kroell used caoutchouc. All of these methods produced considerable compression, to which the good results obtained were attributed. Payr recently became acquainted with Bier's method of treating inflammations which is based on the theory that the body contains within itself protective material against invading organisms which could be utilized if it could be increased enough in the part attacked to overbalance the weight of the invaders. To accomplish this end Bier created an artificial static hyperæmia. Upon reviewing the old Wölfler's method, Payr concluded that its results were due to the creation of a similar but modified passive hyperæmia and not, as was formerly thought, to compression. Erysipelas, Payr thinks, offers a good field for the use of Bier's method both on the extremities and on the head because the disease is localized and a slight increase in the natural protective material is sufficient to effect a cure.

Lichen Ruber Planus, A Contribution to the Knowledge of. BELTMANN. (*Arch. f. Derm. u. Syph.*, 1905, lxxv., p. 379.)

Beltmann reports ten cases of lichen planus with unusual symptoms. In five the onset was abrupt and the course of the disease rapid. These he terms acute lichen planus. In four of the acute cases the eruption was composed of typical lichen planus papules. The fifth case he had re-

ported previously as lichen ruber pemphigoides. Because of its similar onset and course, he includes it now in this group, regarding the vesicular character of the eruption as a mere expression of the greatly increased intensity of the exudation. The characteristics of acute lichen planus Beltmann gives as itching and marked constitutional symptoms preceding, by a usually short interval, the abrupt outbreak of the eruption over the whole body; a rapid course terminating in a few weeks in the disappearance of the papules; pigmentation on the sites of the old lesions; marked general glandular enlargement and often enlargement of the spleen. The mucous membranes may or may not be involved. The clinical history, he thinks, points to the fact that this form of acute lichen planus is of infectious origin. Two of these cases occurred in a brother and sister, while another case had a brother who was said to have a similar affection. These facts, too, have etiological importance. That the enlargement of the glands and spleen is a primary symptom is shown by the fact that their course is parallel to that of the general disease. As to treatment, Beltmann considers arsenic a specific.

In the course of a detailed discussion of the etiology of lichen planus, Beltmann states that special conditions influence the outbreak, the localization and the type of lesions. As in psoriasis, he continues, so in lichen planus, irritation often determines the site, that is, the first outbreak of the disease shows itself in local and chronological connection with some irritation. In illustration he quotes a case in which the sole eruption was in a band form beneath a truss. In a second case its chief seat was in and about a tattoo mark. In a third case in which scabies and lichen planus coexisted there were, in addition to the ordinary lesions of scabies, strings of lichen planus papules whose lines were determined by the scratching induced by the scabies.

He states that lichen planus papules occur in the mouth not infrequently. The case which he reports in this connection is most unusual. The only regions involved were the mucous membranes of the mouth and the urethra. The lesions in the urethra were discovered through endoscopy made to ascertain the reason of the painful micturition of which the patient complained and of the cloudy urine. Upon the middle third of the pars pendularis were seen "changes like those reported by Heuss—four round, large, whitish spots which showed the more striking analogy with the lesions on the oral mucous membrane, inasmuch as on the two larger a marked net work showed beautifully."

Case 8 is that of a man who had had a previous attack of lichen planus for which he had taken arsenic. Four months after stopping the arsenic he had a recurrent attack. On the body were the ordinary typical papules. In the month, however, the eruption was vesicular as was shown by the presence of unruptured vesicles on the gums and the remains of previous vesicles elsewhere as was indicated by the rims of rolled up, detached epidermis. Realizing the rarity of such manifestations in lichen

planus, Beltmann discusses the differential diagnosis at length and concludes that "mit aller Reserve," the case may be called lichen ruber pemphigoides mucosæ oris.

Case 9 was unusual in that the greater part of the eruption manifested itself in long lines on various parts of the body and extremities. On only a few regions were there the ordinary discrete and grouped papules.

Case 10 is given to illustrate changes in the nails.

Urticaria Xanthelasmoidea. NOBL. (*Arch. f. Derm. u. Syph.*, 1905, lxxv., 73; 163.)

Nobl asserts that a diagnosis of urticaria xanthelasmoidea, as he prefers to call the disease, is not justified unless the disease has begun in infancy and caused permanent stains and unless the diagnosis has been verified by the microscope. Therefore, although he found about one hundred cases reported under this title, he will accept but five, as the others failed in one or the other of these necessary conditions. He now adds to these five cases a sixth of his own. The disease appeared in his patient, who is now two and a half, in his fourth month, first upon the chest but later upon the whole body in the form of pea to bean-sized, elevated lesions whose color changed from the red of the early lesion to a permanent chocolate or coffee brown. As these lesions appeared in constant succession and as each one went through this color change, the body soon assumed a characteristic variegated appearance. The disease reached its height in about eight months and after that remained unchanged except for transitory swelling of a lesion now and then. There have never been any subjective or objective symptoms present nor any scaling or desquamation. There has never been any wheal formation or diffuse redness preceding the appearance of the lesions.

When the patient came to Nobl every part of the body was involved with but few exceptions, but the eruption was most abundant over the abdomen, lower thorax and the lower and middle back. There were three forms of lesion present. First, there were pea to ball-of-the-finger-sized nodules and also larger tumors occurring both singly and in plaques. Although these plaques looked firm, they flattened on the slightest pressure. Many of them also had a wrinkled surface and could be pinched into folds. The second form was made up of wheal-like lesions of various sizes which suggested xanthoma planum. The third form consisted of irregular and often wavy contoured, finger-nail to hazel-nut-sized lesions, situated in the skin and occurring singly and confluent to form broad patches. The eruption was symmetrical and often arranged in rows. Urticaria factitia could not be artificially produced on the uninvolved parts at any time during the six months the case was under observation.

Physical examination was negative except for the remains of a moderate rachitis.

Nobl examined microscopically one thousand serial sections made from a nodule taken from the abdomen. He found characteristic changes in the upper part of the papillary body. The superficial epidermal, subdermal and fat layers were scarcely affected at all. In the upper part of the papillary body was a tumor-like collection of cells which were almost exclusively Ehrlich's mast cells. From this center the mast cells radiated out along the adnexa in rows which were gradually lost in the cutis propria. The nodule was capped by an intensely pigmented epidermal seam, while between the cell mass and the basal layer of the rete there was a clear zone in which there were very few cell elements. The grouping of the mast cells about the vessels was best seen in the lower cutis. In the macular region about the nodule the enormous collection of mast cells dominated the picture as it had done in the nodular portion. Also there were no evidences of either acute or chronic inflammation in either portion. Mast cell collections about the vessels and increased pigment in the epidermis were found in the skin adjoining the macular portion, but which showed no change clinically. The pigment, which was observed to be so much increased in all regions, Nobl says, could be proved to be true melanotic pigment and not pigment derived from the hæmaglobin of extravasated blood. Commenting upon the fact that these melanotic granules were always found in the immediate neighborhood of the mast cell collections, he observes that this association was more than chance, and implies that it reveals their origin. It is to these melanotic granules that the characteristic stains owe their color and the permanency which distinguishes them from transitory stains seen in other diseases which are caused by hæmaglobin derivatives from extravasated blood. Further, hæmorrhages never occur in true urticaria xanthelasmaidea.

BOOK REVIEWS

Acute Contagious Diseases, by WM. WELCH, M.D. and JAY F. SCHAMBERG, M.D. *Lea Brothers & Company.*

This is a work of seven hundred and eighty-one pages, illustrated with one hundred and nine engravings and sixty-one full page plates. The work treats of the group of diseases commonly denominated the exanthemata, together with certain other contagious diseases, such as typhus fever and diphtheria.

The volume opens with vaccinia, giving a concise history of vaccination, together with its hygiene and most approved technique. The first chapter continues with the symptoms of normal vaccinia, mentioning the various anomalous forms encountered, and ends with a consideration of the vaccine lesion. This chapter is well written and is of the highest importance to medical men and others interested in public hygiene. Some of the complications of vaccination are handled in a fair and comprehensive manner.

Chapter II—Takes up statistical evidence of the efficacy of vaccination,

which is handled in a conservative, scientific spirit sufficiently convincing, one would think, to any but the most bigoted objectionist to vaccination.

Chapter III—Considers variola as seen in the lower animals.

Chapter IV—Takes up briefly the history of smallpox and its etiology. A chapter is devoted to the subject of atmospheric transmission of the smallpox, the authors maintaining that the disease not infrequently is thus diffused. The various forms of smallpox are then considered, showing the development of the disease in its normal course. This is illustrated by photographs, which portray the different stages of the eruption in a most life-like manner. The complications and sequelae of the disease are then handled in a way showing familiarity with the subject; its pathology is then taken up at length.

In the treatment of smallpox the authors do not attribute any efficacy to the red light. Nearly half the work is taken up by the subjects mentioned.

Chickenpox follows with a brief history. In considering the etiology of chickenpox, the authors call attention to the fact that cases occur in adult life more commonly than has heretofore been given by most writers. A point I think well taken.

One hundred and thirty-five pages are devoted to scarlet fever. Under etiology are considered the various modes of transmission, the inoculability of the scarlatina virus, etc. The photographic illustrations of scarlet fever do not portray the disease sufficiently well to aid in their early recognition. The desquamative stage, however, is strikingly illustrated and gives a true picture of some of the more severe instances of exfoliation. Laryngitis, bronchial catarrh, pneumonia and gastro-intestinal symptoms are entered into. Scarlatina anginosa, severe or septic scarlet fever. Next: scarlet fever maligna, hæmorrhagic scarlet fever are touched on briefly; then irregular or aberrant scarlatina, followed by the complications of the disease, among which may be mentioned, post-scarlatinal nephritis, which is considered in detail. The bacteriology of scarlet fever is then taken up, together with the pathology and morbid anatomy.

The last chapter is devoted to diagnosis, prognosis, and treatment. The treatment is concise and gives in a practical way the most approved measures now in vogue.

Measles and its numerous complications and sequelae are treated of fully. The illustrations are particularly good. The early exanthem and cutaneous manifestations following, are so clearly given that the work must prove of great value to those whose clinical facilities have not permitted them to become familiar with this disease.

While typhus fever and diphtheria may not be given so much in *extenso* as some might desire, yet for the busy practitioner the more essential points in the recognition and management of these formidable affections will be the more highly appreciated.

The volume ends with a complete index, which adds to its usefulness as a ready work of reference.

Upon the whole the book is a very good one. The illustrations are satisfactory and, I believe, better than would be obtained from inferior colored plates.

W. T. C.

Christianity and Sex Problems. By HUGH NORTHCOTE, M.A. F. A. Davis & Co., 1906.

Le Péril Vénérien. By H. LABIT and H. POLIN. (Preface by Professor Fournier). Paris. Masson et Cie., 1906.

"This book is not written for people who are impatient of all solutions of

the sex problem, involving moral effort, and who seek for solutions anywhere but in materialistic philosophy. Just as it has been the object of these pages to describe the true conditions of the sexual conflict so it is their object to estimate fully the opportunities of controlling, developing, and denying one's self afforded by this conflict."

Such is the thesis of Mr. Northcote's very interesting book. He attacks a broad subject keenly and vigorously, endeavoring to follow a path midway between the prudish religious sentimentality of the last century, and what threatens to be the brutal materialism of the present one. It is indeed refreshing to find an author with an avowed religious bent, not endeavoring to torture the facts into conformity with his preconceived religious views, but rather to suggest a method of dealing with the every-day problems of sex in a candid and manly spirit, conscious of the strength in his own self-restraint.

If any criticism may be made of this work it is that, although the author is fortified by an intimate acquaintance with the best psychologists of sex from Augustin and Aquinas, down to Westermarck and Havelock Ellis, and blessed with a naturally judicious mind, he seems unhappily lenient in a theoretical way on subjects of most intense practical import. Thus in discussing Neo-Malthusianism or as we should say "race suicide," he protests briefly against the rash and general adoption by society of the practice of preventing conception; yet he devotes many pages to the concession that, under some circumstances, it may be advisable, making only a plea that it should not be practiced in the interest of luxury or laziness. The medical side of this subject he treats very safely and chiefly by the citation of authorities. But he does not seem to appreciate that any permission for individual judgment is just the excuse necessary for the widespread practice of race suicide for luxury, idleness, or any other reason. Mr. Northcote's attitude on reglementation is equally inconclusive. He recognizes that, in general practice, it has not succeeded very admirably, yet attempts to plead in its favor.

In contrast to Mr. Northcote's work, that of MM. Labit and Polin, frankly belongs to the new French school of popular science. It deals with physical facts in a materialistic way and is laden with statistics of every sort and source. The infinite scientific detail of the book would seem to unfit it for the "popularization" to which it is dedicated. Several chapters are devoted to a strong plea for reglementation.

The Young Man's Problem, Educational Pamphlet No. 1. By a member of The American Society of Sanitary and Moral Prophylaxis.

The various questions concerning the young man's problem, are handled in a manner free from any objection on the part of the most critical. The Society in this pamphlet makes a very effective move in the difficult problem before it, of giving sound and wholesome instruction on sexual matters to adolescents, without running counter to Anglo-Saxon prudery. The Society could not secure endowment for a better purpose than the diffusion among young men of such a pamphlet.

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DERMATOLOGY AS A FIELD FOR ORIGINAL RESEARCH

By M. B. HARTZELL, M. D., Philadelphia.

Address by the President. Presented at the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, O., May 31, 1906.

GENTLEMEN:—It is my agreeable duty to welcome you to the Thirtieth Annual Meeting of the American Dermatological Association. Although barely five months have elapsed since our last meeting, the programme presented for your consideration is an ample one, and one full of interest—convincing proof, if this were needed, of the zeal of the members of the association and the untiring energy of your Secretary. In view of the great irregularity as to time with which the last two meetings have been held, it might be well for the association to consider the advisability of fixing, once for all a period with reasonable limits within which our meetings shall be held, in order to avoid such irregularity in the future, an irregularity which adds much to the work of preparing for the meetings.

In casting about for a suitable theme upon which to address you, it occurred to me that it might be well to omit for once the usual time-honored review of progress, and to substitute for it, as a wholesome corrective to the self-satisfaction which is so apt to follow the contemplation of things accomplished, brief reference to some of the things we might have done better, or have left undone altogether. With some such end in view, I have selected as my subject the opportunities for original research afforded by dermatology, and more particularly those fields of research peculiarly his own which have been more or less neglected by the dermatologist. And I beg you to believe that what I am about to say is said in no spirit of unkindly criticism, but rather with the purpose of offering a plea for a broader, and, as I believe a juster conception of the sphere of dermatology.

I think most of you will agree with me that the profession at large is rather inclined to regard dermatology as a specialty which deals, for the most part, with trivial affections, and the dermatologist as one who concerns himself largely, if not chiefly, with mere cosmetic matters, in some sort a rival of the manicure and the so-called "beauty doctor." And we may ask ourselves if we are not, in some degree at least, responsible for this unflattering view; whether we are not inclined to devote too much time in our published work to the less important affections of the skin, and to restrict to too narrow limits the sphere of dermatology.

The most superficial review of the dermatological literature of the past two or three decades—and I now refer to the literature as found in the journals devoted to cutaneous medicine, since this may be taken as representing the work done by the specialist—will show that certain fields of research have been almost, if not entirely, neglected, and that, in some instances at least, what seems to me a disproportionate amount of time and energy have been devoted to trivial affections. As an extreme example of what I mean by the latter statement, I may refer to a paper published a few years ago by a distinguished foreign dermatologist, in which no less than sixty solid pages of a well-known journal were given to the discussion of the removal of superfluous hairs by electrolysis. I think we may ask whether the game, in this instance, was worth the candle. I beg that you will not misunderstand me; I do not intend to decry reasonable attention to some of the slight but disfiguring ailments occurring upon the skin; I know only too well how often these prove grievous burdens to their bearers, serious obstacles to social enjoyment, and even, in many instances, to success in life; but let us not neglect more important matters for these.

No other tissue of the body offers such extraordinary opportunities for the study of morbid processes in general as the skin. It is always possible to obtain what is practically living material for microscopic study, to observe the progress of disease from day to day, even from hour to hour; and yet the general pathologist, if we may judge from what we find in the text-books on pathology, has given almost no attention to diseases of the skin, and I regret to add that the dermatologist, until a recent period, had made but little more use of his opportunities. It is true that we are now studying the pathology of the skin with great industry, but, in my opinion, rather too much from the standpoint of the specialist.

In recent years all the laboratories of the world have been en-

gaged in the endeavor to solve the problem of the causation of cancer, but the dermatologists, who have exceptional opportunities for the study of this one of the most important questions in the field of medical research, have, with few exceptions, concerned themselves little or not at all with it. I hasten to add, however, that one of the exceptions to this apathy is found in a member of this association.

Some aspects of the cancer problem seem to me to be especially within the sphere of dermatology. For example, hyperkeratosis and hyperpigmentation, conditions seen with great frequency upon the skin, are certainly intimately related to carcinoma, the former being often a true precancerous affection, and the latter frequently being associated in some unexplained way with extreme malignancy. As to the intimate nature of these two conditions we know but little, and comparatively little is to be found in dermatological literature concerning their undoubted relationship to cancer. Carefully conducted investigation with modern methods would probably afford some information as to the genesis and mechanism of this neoplasm.

The effects of traumatism, too, whose causal relationship to carcinoma is affirmed and denied with equal positiveness by equally competent observers, might well form the subject of the dermatologist's study.

In this same connection I might refer to the rich harvest waiting for the investigator in the study of the changes occurring in epithelium as the result of disease. Apart from the work done quite recently by a very few men, we know almost nothing about the morphology of diseased epithelium; so little, indeed, that it is only a short while ago that pathologists throughout the world were calling degenerated epithelial cells protozoa, and I fear some of them have not advanced much beyond this point yet.

The many and complex problems connected with the subject of immunity which just now so greatly engross the attention of investigators would probably receive some illumination from a carefully conducted study of the complete or partial local immunity frequently observed in a considerable portion of diseases of the skin. We have all noticed how, in circinate eruptions, when two circles meet, they disappear at the point of contact, probably as the result of an acquired transient local immunity. This peculiarity so frequently observed, among other diseases, in psoriasis, is in my opinion strongly indicative, if not certain proof, of its infectious nature. We all know, too, how infrequently, if ever, the scars left by ulcer-

ating syphilides, unlike those of lupus, become the seat of new lesions. This form of immunity, many examples of which must occur to you all, forms an attractive, and without doubt fruitful, field for study, a field which so far as I know has not yet been touched.

An extremely interesting subject deserving of much more attention than has been hitherto bestowed upon it, is the antagonism occasionally observed between general diseases and diseases of the skin. As a striking and instructive example of such antagonism. I recall the case of a medical student in the University of Pennsylvania in whom an extensive trichophytosis of the axillia disappeared spontaneously during an attack of typhoid fever; but as it reappeared with the advent of convalescence, it was evident that the fungus was not killed, but its growth merely temporarily inhibited. The disappearance of psoriasis during the course of general disease is likewise a matter of common observation. The converse of such antagonism, the commensalism sometimes observed in cutaneous and general diseases, such as the frequent association of tinea versicolor with pulmonary tuberculosis and other wasting diseases, would also probably repay serious study.

Whatever attractions the purely scientific aspects of medicine may possess, and they are many, the cure of disease and its prevention, or, when this is not possible, the alleviation of suffering and the palliation of the symptoms we cannot remove, are the real end and aim of all medical research. Although the tendency of the present is to rely more and more upon measures other than drugs, yet these always have and probably always will play a large part in our struggle with disease; and if we are to use these intelligently with the best results they are capable of producing, we must know how they produce their effects, and this is best learned by the study of their action upon healthy tissues. Now it is a most extraordinary fact that, with the exception of a very few drugs, such as arsenic and antimony, we possess almost no knowledge worth the name of the physiological action of drugs upon the skin, and especially of their local effects. With the exceptions named, we may search in vain in text-books of therapeutics for any rational or scientific account of the action of the drugs used locally in the treatment of diseases of the skin. For example, where are we to find any intelligent account of the local effects upon the healthy skin of tar, sulphur, mercury, drugs which have been employed time out of mind in the treatment of cutaneous diseases? We are told that such and such

drugs are stimulants, or sedatives, or alteratives—this last term meaning anything or nothing at all—but not one word as to their effect upon epithelium, upon the sebaceous or sweat glands, no experiments made upon the normal skin to explain their use in disease; and until we know something of these the therapeutics of cutaneous disease must remain, as now, the baldest empiricism.

In connection with the therapeutics of skin diseases, the study of the drug eruptions should prove of the very greatest value. I do not now refer to the study of their clinical features, for we possess a fairly accurate knowledge of these, but to the study of their pathology and histopathology. If carefully and intelligently carried out, this would without doubt throw a flood of light upon the pathogenesis of many diseases of the skin, and, what is more important, would enable us to use our remedies with some definite idea of their mode of action, furnishing us with more accurate indications for their employment.

The skin likewise affords unusual opportunities for experimental therapeutics, especially in connection with the various infections, since in no other tissue or organ of the body, except the eye, may the effect of remedies be so readily observed. As an example of what may be accomplished in this direction we may refer to the work of A. E. Wright in England with the so-called opsonins, work which points the way to new and most promising fields in the treatment of disease, not only of the skin, but of other and more important organs. Indeed, if therapeutics ever becomes a real science instead of shrewd guessing, as it is largely at present, it will be due in no inconsiderable measure to work of this character.

For those who have the aptitude and necessary training, the bacteriology of the skin presents an enormous field for research. We know little or nothing definite about the flora of the skin in health; and while the subject is one of great difficulty, technical and otherwise, there can be no doubt that the determination of the micro-organisms found upon the normal skin would be of immense benefit not only to the dermatologist, but even much more to the surgeon. Indeed, the part played by micro-organisms in diseases of the skin cannot be determined with any definiteness until we know something more of those found upon it in health.

The rôle played by toxins, using this term in its largest sense, in the production of disease is one of great and ever increasing importance, and should especially interest the dermatologist, since these manifest their morbid effects so frequently upon the skin.

It is true that this subject has received some attention from those especially interested in cutaneous diseases, but in no degree commensurate with its importance. Since many of the symptoms of toxæmia may be produced almost at will upon the skin, and since what occurs upon the cutaneous envelope of the body probably in many instances likewise takes place in the viscera, especially in the gastro-intestinal tract, with certain variations due to differences in structure and function, a study of toxic rashes must inevitably lead to results of much importance to dermatology and to general medicine.

Believing that dermatology should include every manifestation of disease upon the skin, I have always felt that the eruptive fevers properly belong to this specialty much more than to any other department of medicine; and I have always deplored the almost complete neglect of this most important group of diseases by those specially interested in cutaneous medicine as being a serious error. I especially believe that every teacher should embrace every opportunity to present to his classes cases of the eruptive fevers as properly belonging to diseases of the skin. Were this done, I am sure we should hear less of grave errors in the diagnosis of these affections; we should rarely see cases of varicella, bullous erythema multiforme, even scabies, mistaken for variola, errors which are greatly to our discredit, and what is more important, the source of great danger to the public.

In concluding this hasty and necessarily imperfect sketch of some of the more or less neglected opportunities for research presented by dermatology, let me urge that we be somewhat less of specialists and somewhat more of physicians who, while specially interested in disease as found upon the skin, yet retain an active and wholesome interest in every department of medical research, endeavoring to contribute a share toward the solution of the great problems of medicine for the study of which dermatology offers in abundance such unexcelled, if not unequalled, opportunities.

THE DEVELOPMENT OF MULTIPLE AND SUCCESSIVE INITIAL SYPHILITIC LESIONS AND THE PATHOLOGY OF SYPHILIS

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IT is very interesting to note the changes in medical opinion which have taken place concerning the development of the initial syphilitic lesion. Several decades ago when the doctrines of unicism and dualism in syphilis caused such acrimonious controversy, the dualists make a strong point in the assertion that one of the distinguishing features between the soft chancre and the initial syphilitic lesion was that the soft sores were nearly always multiple, while in the case of the hard ulcer the lesion was as a rule unique. Thus it happened that for long years the solitary character of the syphilitic lesion was claimed and was generally accepted. In the course of time, however, this dictum was disputed, and it was conceded that the evolution of syphilis in some cases began by the appearance of several lesions; but even then the number was restricted to two or three. Then again the belief was current that the syphilitic initial lesion had its habitat almost exclusively on the genital organs, and it was only after long observation and controversy that the conviction forced itself on the medical mind that extra-genital lesions (usually not the result of sexual transgression) occurred in a goodly proportion of cases. To-day we know that they occur in about five per cent. of all cases of syphilitic chancre. With advancing study and observation our ideas of the multiplicity of syphilitic chancre have greatly expanded, so that now we recognize the fact that it is not uncommon to see all the way from three or four to thirteen or fifteen lesions. It has further been shown by reliable statistical facts that in about twenty-five per cent. of all cases of syphilitic infection the initial lesion is multiple.

Of late much attention has been paid to the rather anomalous development of syphilitic primary lesions, genital and extra-genital, in distinct crops, and now we have to take into consideration the lesions which French authors call *chancres syphilitiques successifs*.

Sabareanu¹ who has written learnedly on this subject, shows that some authors deny the existence of these lesions and claim that they are all developed synchronously, but that lack of care and acumen in observation has led to the false conclusion.

Then again it is claimed by some that one infection acts as a bar against a second.

Some authors admit that successive chancres may occur as late as the twentieth day after infection, while others in the minority claim that such reinfection is impossible, since at that time the entire organism has been infected and thus been rendered immune.

Much light is thrown on this subject by experimental inoculations, many of which were made, years ago. We will first consider successive chancres due to experimental inoculation.

In the years 1871 and 1872 I made a number of inoculations (fully sixty) with the unirritated secretion of hard chancres, and also with that of irritated and ulcerated specific primary lesions. At that time Prof. William Boeck was on a visit to this country, advocating his favorite method of treatment of syphilis; namely by syphilization. Bumstead and I practiced the method with the view of testing its merits, failures or drawbacks, and in the end we rejected it as being both painful, disfiguring, and obnoxious to patients, and of no curative effect whatever. From these early inoculations I learned much regarding the reaction of the cutaneous tissues to both unirritated and irritated secretions of hard chancres. I quote from an early paper published by me,² the results of my first inoculation. "When the nodule, which though no larger than a small pea, but which was very firm in consistence had existed about two weeks the epithelial scales which covered it were cast off and then a slightly grayish ulcerated surface was observed, the granulations of which were very small and it was covered with a very scant viscid secretion. At Dr. Boeck's suggestion I inoculated some of this secretion upon the hypogastrium of the patient and when the scarifications had healed at the end of about three days, a very minute pale red papule appeared which at the end of a week had a diameter of about one-third of an inch and an elevation of about

¹ *Chancres Syphilitiques Successifs*. Paris, 1905.

² *American Journal of Syphilography and Dermatology*, July, 1871, p. 245.

one-third of a line. Dr. Boeck informed me that he had observed the same thing often when inoculating with the secretion of an un-irritated hard chancre. This papule remained without any other change than a slight desquamation for about a month. The indurated sore remained in a sluggish condition for about six weeks, when general manifestations showed themselves."

In this case the experimental chancre (its mother chancre being fourteen days old) appeared three days after the inoculation, but in succeeding cases, fully fifteen in number, the incubation period of the inoculations was very variable, even erratic, since in a given inoculation I could never predict an early or delayed successive chancre. My records show cases of successful inoculation results of 7, 9, 10, 12, 15, 21, 24 and 27 days.

Now these experiments have also been successfully made by Sperino, Fournier, Bidentkap, Bumm, Pontoppiday, Lasch, Queyrat, and others, who in the main reach the same conclusions as I have. Very recently (1905) Queyrat³ inoculated three syphilitics with the secretions of their own chancres, dating in duration from four to twenty-eight days, in thirteen séances. Of these thirteen attempts, he obtained three positive results, and produced lesions which he regarded as aborted attenuated syphilitic chancres of which he says, "*Ils se trouvent évoluer sur un terrain en voie d'immunization syphilitique.*" Of these three successful cases, the first and second were obtained from a chancre five days old and the third from one six days old. The incubation after the auto-inoculations were twelve days in two cases, and twenty-one days in the third case.

At the January, 1906, meeting of the *Société de dermatologie et de syphiligraphie*, Queyrat presented a patient who had two chancres, one of fifteen, the other of twelve days' duration. From the latter, Queyrat had made inoculations upon the patient's arm, and at the same time had made sterile punctures on the other arm for comparison. The latter produced no effect, whereas the chancrous inoculations were followed by the appearance of three little chancres, accompanied by a slight adenopathy. Chancre, therefore, he claims, is inoculable upon the syphilitic subject himself, but it is necessary in order that the unoculation may succeed, that the first chancre shall have less than twelve days' duration and that the patient shall not have had any treatment, local or general.

From the mass of authoritative evidence accumulated it can be

³ "Autoinoculation de Chancres Syphilitiques." *Ann. de Derm. et Syph.*, 1906, pp. 292 *et seq.*

stated without fear of contradiction that the occurrence of successive syphilitic chancres as a result of experimental inoculation is an assured fact. The inoculated successive chancres appear as papular, nodular, and erosive lesions; are usually rather small, hence regarded by some as abortive,⁴ but in some cases the lesions are as large as the original chancre.

In clinical practice the occurrence of successive chancres may be due to simultaneous or later infections from a single source, and we may call these cases of auto-infection. In some cases there is a strong probability that the successive chancres are due to identical secretions derived from another syphilitic individual, so that the victim is poisoned from two sources. These cases, therefore, may be termed those of hetero-infection.

In auto-inoculated successive chancres we have tolerably definite and well marked data, though the evolution of these lesions is not invariably systematic. We at least know where the poison has been experimentally placed. Cases of successive chancres acquired in coitus are largely those of doubt and perhaps haphazard, and analyses of them are always attended with difficulties and uncertainties, caused by the patient's carelessness, inadvertance and ignorance, and often by his own uncleanness. In the absence of a clear history the surgeon is often at a loss to determine why in a given case one chancre is followed by another or several at irregular intervals.

The most satisfactory class of these cases is seen in healthy women who give the breast to one or perhaps two actively infected syphilitic infants. In these cases it is not uncommon to see multiple successive chancres, each crop of which is caused by the infection of excoriated patches or papillae around the nipple which from time to time is bathed with virulent syphilitic secretion. The child infects the woman at irregular intervals.

In many cases it is probable that at a given coitus infection of **several parts of the body** is simultaneously produced.

In some cases the evolution of the lesions may be synchronous,

⁴ In the discussion of Queyrat's cases before the *Société de Dermatologie et de Syphiligraphie* of Paris, objection was made to calling these lesions of auto-inoculation chancres, so this experimenter has called them provisionally *syphilomes d'auto-inoculation*. In my researches I rarely saw a lesion which I could justly term a chancre, since they always appeared as mild aphlegmasic papules or small nodules. They are in reality syphilitic intra-primary inoculation papules, and perhaps the term *syphiloma* with an explicative adjective may be used in speaking of them.

but in others for various reasons (particularly owing to the thickness and resistance, as well as succulence and vulnerability, of the tissues) they appear in irregular crops. In many cases there are ports of entry scattered over the whole body, such as insect bites, abrasions, minutes fissures, acne papules and pustules, eczematous spots, perhaps of acarian origin, itching points over the face, head, nose and ears, hypogastrium, thighs, and even legs, anus and arms.

Moreover, many men and women are careless in the matter of personal nicety and cleanliness and having chancres on their genitals, carry the secretion by their fingers or some inanimate agent at various times to the different lesions of continuity, and thus infect themselves, sometimes in several or many places. Then again it often happens that sexual indulgence and depraved acts of coitus may cause chancres not only on the sexual organs, but also on other parts the seat of erotic sexual manipulation and gratification. In this category perhaps may be placed the case of Pringle in which several chancres were found as follows: On the lips, forehead, thigh, leg, buttock, and nostril, and also that of Petrini, in which six lesions were found on the face. We are, however, not in a position where we can intelligently consider and study many of the various cases of clinical successive chancres.

I will begin with personal recitals.

CASE 1. Early in 1893, a healthy man addicted to drink, had coitus with a woman of the town. In twenty days he noticed a chancre of the right side of the inner layer of the prepuce, which when I saw it within ten days was of split-pea size and a typical chancrous erosion. It was treated with black wash and vigorous asepsis was enforced. It gradually increased in size, accompanied by subjacent infiltration, until it presented the appearance shown in Fig. 2 of the colored plate. Seventeen days after its onset a small, red, round scaling patch, appeared on the lower lip. This increased in area, depth and extent, and developed into the annular chancrous erosion on the lip seen in Fig. 1. Five days later (twenty-two days after onset), a small chancrous erosion appeared below the mother chancre and was soon surrounded by an annular ring, (see Fig. 2). This was followed in five days (twenty-seventh of onset) by a similar lesion lower down. Twelve days later an oval, parchment-like chancrous erosion three-quarters of an inch long appeared on the cutaneous layer of the penis behind the glans and over the raphe. This man had had a single coitus and he declared in the sexual act his consort, who was afterwards found to have

exuberant condylomata of the vulva and ulcerations of the lips, had bitten him on the lower lip producing temporary pain. He had carefully avoided touching other parts of the body when dressing his chancre.

Here then was the case of a man with an initial lesion which was followed by five other lesions, four on the penis and one on the lip.

This case was interesting also from the fact that the infecting phlebitis and lymphangitis which developed from his chancre were of enormous proportions, as shown in the plate. The parts felt as if a small sausage was seated under the skin. The course of general syphilis, which was ushered in fifty-five days after the onset of the chancre, was severe.

CASE 2. A lad 18 years old had in 1894 coitus which was followed in twenty days by a chancre with inguinal adenopathies, which soon became typically encrusted (see Fig. 4). He applied black wash and was warned as to the necessity of strict cleanliness, which he claims he implicitly followed. Twenty-one days after the onset of the mother chancre a second erosive lesion of chancrous appearance developed on the dorsum of the penis behind the first, and became of goodly size (see Fig. 4). Somewhere about the time of the appearance of his second chancre this youth was violently kissed and bitten by another *puella publica* and as a result in ten days he had a chancrous erosion of the lower lip, which was followed in about a week by a smaller lesion of the upper lip (see Fig. 3). Fifty-eight days after the appearance of the mother-chancre general syphilitic manifestations showed themselves.

Here then was a case of successive chancres unmistakably due to hetero-infection, the first *puella* causing his two genital chancres and the second one the two labial lesions.

CASE 3. A man, aged forty-eight, had two hard chancres on the penis and glans with an incubation of twenty-two days. These were followed in seventeen days by an enormous chancre under the umbilicus, which was of oval shape, two inches long and one and a half wide. Great adenopathy. This man, who was intemperate in his habits and careless, had an unusually long penis. He had been bitten by insects and had an excoriation from scratching on the hypogastrium. The successive chancre was due either to the transference of the secretion from his penis to his abdomen, or else through contact, when in liquor, of the penis with that region.

CASE 4. A man, aged thirty-nine years, had three chancres

of prepuce and sulcus coronarius with an incubation of eighteen days which was followed in twelve days with typical synchronous lesions on the upper lip and the lobe of the right ear. He had had coitus with a woman ascertained to be syphilitic, who in her erotic dalliance had bitten him about the head. In due time he had general syphilis.

CASE 5. A man had typical chancre of the upper lip with an incubation of twenty days, which was followed in nine days with similar lesions of the right ala nasi and penis. The ganglionic reaction about the neck was well marked before the appearance of the genital chancre, which was soon accompanied by elephantine enlargement of the inguinal glands. I have recently learned that this man had buccal and penile coitus with an infected woman. Strange to say the exordium of his syphilis began in his lip, and the penile lesion was a successive chancre.

CASE 6. A man, after an incubation of twenty-one days, had a typical indurated chancre of the glans which enlarged and sclerosed the whole distal part of the organ. In eighteen days two chancres, one on the right forefinger and the other on the left thigh, both typically indurated, were observed. In this case the patient thought that perhaps he had infected his finger while fondling his consort's genitals. At the same time had an itching spot on his thigh.

In medical literature many interesting cases of successive chancres are reported, but I think those detailed are sufficient, particularly if I append the recent cases of Queyrat,⁵ Bellezza,⁶ and Danlos.⁷

Queyrat reports the following interesting case: A man, twenty-two years old, had daily intercourse with his mistress (and with her alone), until June 23, 1904, when he discovered a hard chancre in the sulcus coronarius on the right side. He then left the woman and had no further intercourse. On the first of July, a second chancre appeared on the cutaneous sheath of the penis. On the fifth of July a third chancre appeared near the pubes, and from that time with intervals of one or two days, chancres appeared on the penis, until a total of eleven chancres were observed, which Queyrat styled *Chancres syphilitiques avortés*.

⁵ *Bulletin de la Société Médicale des Hôpitaux de Paris*, June 29, p. 905, 1904.

⁶ *La Tribuna Medica*, July, 1905.

⁷ *Société de Dermatologie et de Syphilographie*, March 4, 1904.

Bellezza reports the very recent case (July, 1905), of a man, twenty-one years old, who had had repeated coitus with the same woman during January and part of February. On the twelfth of the latter month a chancre appeared in the coronal sulcus and six days later a lesion which resembled an acne pustule developed on the left cheek which in the following days, as a result of scratching, assumed the appearance of an infecting chancre.

Danlos reports an interesting case in which a man had coitus with the penis and with the mouth which resulted in the development of seven chancres; five on the penis, one on the tongue and one on the lower lip. These chancres appeared in two crops, one of which was observed twelve days after the evolution of the first.

In my cases the development of most of the recurring lesions was fully as marked as was that of the classical initial chancre.

The date of evolution of the successive chancres may be 5, 10, 15, 20, 30, and in one case it was said to be forty-two days after the first chancres. It is very rare indeed to observe the development of a successive chancre later than ten days before the appearance of secondary manifestations.

There is a special form of consecutive chancre which is deserving of mention and due to coaptation of parts, the first one being the seat of a chancre. This is seen upon the scrotum, or internal surface of thighs, or upon the hypogastrum in cases of chancre of the penis which by accident impinge on these parts, and in women on one side of the vulva, the opposite one bearing the real lesion. Many years ago Diday reported the case of a man who had a chancre of the lower lip which was followed twenty-one days later by a similar lesion at the point of coaptation on the upper lip. I have seen several such cases. Tacewicz and Zarewicz report two cases in which a chancre of the upper lip gave rise to a chancre of the tip of the tongue due to habit of the patients of moistening the upper lip with the tongue. These may be called consecutive chancres of coaptation. In these cases the syphilitic secretion which escapes and bathes the nearby parts acts as an irritant and develops new chancres. The same auto-infection is seen in secondary syphilis in cases of specific excoriations or oozing papules, or condylomata and in some cases of pustular and tubercular syphilides. Such sores are found on the scrotum, lips, thighs, gluteal fold, anus, vulva and inner surface of thighs, in fact on any part which is in coaptation with a part of the seat of the above mentioned syphilitic lesions.

The question which now presents itself to us is this: Under

what conditions do these successive early lesions develop, in short what is their pathogenesis? The various writers on this subject are rather vague in their statements as to the causation, and it is from implication rather than from decisive statement that their ideas are grasped. It is perfectly plain that they look upon the initial lesion of syphilis as at first and for a limited time a localized infection. If, now, we consider the opinions generally held as to what takes place in the early stages of infection we find: That the virus is localized at its point of entry, and that the first stage of syphilis, or rather its first period of incubation, is occupied by the processes which go toward the development of the chancre, and that this lesion is then the sole expression of the disease. The virus is then supposed to be limited to the chancre for some time, let us say from ten to twenty days. Lang's⁸ idea of the chancre is sharply stated, and conveys in a few words the prevailing sentiment of the past forty years at least. He says that a morbid focus is developed, and at its periphery a cell-wall is formed which acts as a temporary barrier or blockade. In due time (during which the syphilitic virus is germinating and maturing) this melts away or disappears, and then the virus is carried into the surrounding parts by the lymphatics and the blood-vessels, and by slow contiguous tissue-infection. In other words, the chancre is regarded as the concentrated effect of the virus, and that for contamination of the system to occur the changes inherent in it must go on to maturity before its poisonous elements can be scattered generally throughout the system.

In explaining the occurrence of successive chancres a number of authors lay stress on a supposed immunity of syphilitic tissues to auto-infection which is said to be present before the evolution of secondary manifestations, and to be lost after the culmination of that event. They seem to think that syphilitic infection occurs chiefly (even exclusively) through the lymphatic vessels, and that its progress is at first moderately slow and retarded for a variable time by the lymphatic ganglia, which they think seem in a measure to keep back generalized infection. These authors regard successive chancres as evidence that in the region on which they occur there is as yet an immunity of the tissues, and that the syphilitic virus may there develop its characteristic early lesions, in other words, to react to the syphilitic stimulus or poison. In accordance

⁸ "Wege und Wundlungen des Syphiliscontagiums, et cet.," *Mittheilungen der Wien. med. Doctorum Collegiums*, xiv. and xv. Band, 1888-89.

with this doctrine some authors claim that the development of successive chancres, however produced, must occur quite early when the supposed immunity is said to exist. Later on, when the impending general infection grows more and more intense, it is lost and then the whole organism is invaded. In general six to nine days, and exceptionally up to twenty-six and twenty-eight days, are admitted as being the periods at which successive chancres may develop. Concisely summed up the situation may be stated as follows: Syphilitic infection is said to be for a time centered in the initial chancre, and that it invaded the tissues rather slowly by way of the lymphatic circulation. In this slowly developing period, before the whole organism is infected, the tissues generally are yet vulnerable to the syphilitic virus, which elsewhere may cause similar lesions to the original infecting chancres. Later on when general infection is established this supposed immunity is lost and the virus ceases to act on the system. My own convictions on this subject are diametrically opposite to those just recited, and it is my conviction that from the start the whole organism is infected. It requires several weeks, however, before the intensity of the infection can be said to be complete.

In 1891 I studied microscopically the evolution of syphilis with the aid of Dr. Ira Van Gieson and with the collaboration of Prof. Prudden, of the College of Physicians and Surgeons of New York. The observations were read⁹ before the Academy of Medicine, New York, in May of that year, and have since been generally accepted in America, but it seems that they are not known in Europe.

Briefly epitomized, my results are as follows: I had had the good luck to be able to remove a hard chancre on the extreme end of the prepuce, together with its two layers, fully an inch and a half long, eighteen days after the infecting coitus. Seventeen days after the appearance of the chancre inguinal adenopathy was discovered, and in thirty-two days after that manifestation generalized syphilitic symptoms showed themselves. Thus it will be seen that the ablated prepuce was particularly precious, for it contained an initial lesion of syphilis only eighteen days old, and beyond it and proximal to the body at least an inch and a half of tissue, which looked perfectly healthy, and in the light of our early knowledge of syphilitic infection would have been considered to be free from the disease. This specimen I placed in the hands of Dr. Ira Van Gieson,

⁹ Why Syphilis is not Aborted by the Early Destruction of its Initial Lesion." *Medical Record*, July 4, 1891.

with the view of ascertaining the appearance of the initial lesion at its very earliest period of development, and also of finding out, if possible, why under such favorable circumstances its excision had failed to abort syphilis. In order to make the study more complete and perfect, I also gave Dr. Van Gieson a prepuce upon which was seated a chancre ten days old, which appeared sixteen days after the infecting coitus. This lesion was therefore the evidence of an infection which took place twenty-six days before. The examination of the eighteen-day-old specimen showed that the chancre consisted of a little mass, quite well circumscribed, of small round cells, and was in every way typical of the appearances of an early initial syphilitic lesion. But, besides this, it was found that well down under the chancre the small veins were surrounded by this same round-cell infiltration. Then, beyond the margin of the chancre, in skin, which to the eye seemed normal, this same infiltrating and infecting process was very clearly observable. This same state of affairs existed in the whole prepuce, and how much farther on the penis it is impossible to tell. The appearances presented by the second twenty-six-day-old specimen were confirmatory of those of the first, showing this vessel-implication far beyond the outer margin of the chancre. These studies, therefore, go to show that in the very first days of syphilitic infection the poison is deeply seated beneath the initial lesion, and that it extends far beyond its margin—that it is in a most active state, and, running along the course of the vessels, it soon infects the parts beyond, even to the roots of the penis. To my mind, therefore, the facts adduced show very plainly that the infection-process in syphilis is from the very beginning one of constant, even incessant, growth and diffusion. The observations presented in my essay therefore showed that the syphilitic poison was copiously and extensively diffused through the tissues of the penis by means chiefly of the small veins, arteries, and lymphatics. In confirmation of these observations the results of the studies of the so-called lymphatic cord of syphilis by Dr. Külneff¹⁰ of St. Petersburg are very important, since they show the more advanced stages of this peculiar vessel-change, and of the further progress of syphilitic infection. Külneff excised portions of five of these cords taken from patients having true hard chancres about the prepuce and glans. The cords varied in size from a

¹⁰ "On the Question of the So-called Lymphangitis in the Early Stage of the Primary Syphilitic Sclerosis." *Inaugural Dissertation* (under the auspices of Professor Tarnowsky). St. Petersburg, 1889.

knitting needle to a lead pencil, and were from a fortnight to ten weeks old. Külneff concludes that the cord occurring in cases of primary syphilitic sclerosis results from inflammation of the subcutaneous veins of the penis. In other words, it is a manifestation of syphilitic endo- and peri-phlebitis. The morbid process commences primarily in the vein, probably in its interior, and from it infiltration of granulation-cells occurs. In short, the results of the examination of my cases dovetail completely and conclusively with those of Külneff, who studied the syphilitic process farther up the penis in the larger vessels, which were the seat of a more advanced infection. (See Figs. 5 and 6). The conclusion is warranted, I think, that the changes which take place in the chancre and small radical vessels run up quite promptly to the larger efferent vessels, and that largely through them is the poison diffused into the system.

These clinical and pathological observations, therefore, show why syphilis is not aborted by early excision or destruction of its initial lesion, even including a liberal slice of the surrounding parts. The reason, succinctly stated, is that (contrary to the prevailing views) the syphilitic infective process is from the very start a quite rapid one. The poison strikes directly for the blood vessels and, causing there its peculiar changes, runs along them with astonishing rapidity. Thus it gains a foothold in parts beyond the reach of the knife, caustics, or electrolysis. In fact, the tissues of the whole penis in very early syphilis are, as we may say, honeycombed by these infected vessels. These observations go to show that beyond the chancre there is sufficient syphilitic poison to infect the whole system, and that the initial lesion through the visible and exuberant evidence of syphilitic infection, may be removed without in any way altering or modifying the course of the disease. It is very apparent that if absorption of the syphilitic poison through the lymphatics is, as claimed by recent authors, rather slow, no such contention may be made regarding the veins and arteries, which are not in the least obstructed by the ganglia, if such obstruction really exists. To my mind, therefore, the occurrence of successive chancres does not show that the parts invaded are the seat of an immunity due to their not yet being syphilitically infected, but on the contrary, that these parts are from the onset actively syphilitic, and that the tissues react moderately well to the repeated early specific infection, either by experimentation or in clinical practice.

PRODROMAL LOCALIZED SYPHILIDES.

As a corollary of the foregoing studies of very early syphilitic infection, it is relevant to briefly call attention to certain other intra-primary manifestations of syphilis. It is well known that in general the evolution of the secondary stage of syphilis follows in a quite orderly manner, the second period of incubation in from six to twelve weeks. In an early ¹¹ communication I stated that prior to the secondary climax it was exceptionally found that a limited prodromal specific rash might appear. I quote as follows:

Unusual Mode of Evolution.—The appearance of a general eruption is looked upon as the indication of constitutional infection, but the first eruption may be limited, and a general rash may not be developed for several weeks. In some cases only two or three dermal lesions can be found at the usual (precocious) date of invasion. Should the eruptions be erythematous, the spots soon become coppery, and remain in a chronic condition; if papular, the papules are sluggish, and usually leave a pigmented spot. In connection with these scanty lesions the patient may suffer from syphilitic pains in the head, in the bones, etc., and perhaps may have erythema of the fauces and high temperature. Within two to six weeks the usual general eruption follows.

These personal illustrative cases are appended:

Case I.—A man, aged thirty-three, had coitus about June 1, 1871; on the 10th of August he noticed a small, split-pea-sized nodule, with a brownish, necrotic surface, on the left side of the frænulum. At the time the inguinal ganglia were distinctly enlarged. (Ulcer had probably existed ten days, certainly not longer; consequently the period of incubation was fully sixty days.) On August 25, 1871, a flat papule of a dark, coppery color appeared just over the left eyebrow toward the median line, and a similar one developed on the margin of the umbilicus. Fourteen days from the appearance of these *avant-couriers*, a general roseola and constitutional symptoms were observed. The two single papules ran an indolent course, scaled, and left coppery pigmentations, which were very persistent. This was the first time I observed this peculiar mode of evolution of syphilis.

Case II.—Female, twenty-five years old, infected between the

¹¹ Bumstead and Taylor, "The Pathology and Treatment of Venereal Diseases," Philadelphia, 1883, p. 559.

4th and 5th of September, 1888, by her husband. On the 5th of October I found a flat indurated chancre on the inner aspect of right labium major, extending to the junction with the labium minus. Patient thought the lesion began about the 20th of September, and was afterward under constant supervision. On the 18th of November a small scaling papule began on the right naso-labial sulcus, and a similar one on the neck, at the middle of the anterior border of the right sterno-cleido-mastoid muscle. The ganglia of the body were at the time enlarged, the inguinal to a much larger degree. No other lesion on any part of the body. December 3d, a general roseola, with malaise and severe nocturnal headache. Since, she has had mucous patches in the mouth. The papules on the nose and neck became enlarged, flat, and scaling, and lasted until the influence of mercurial treatment for the general manifestations was felt. They then slowly subsided, leaving brownish pigmentations, which are to-day, April 26, 1889, still faintly visible.

Case III.—A man, aged fifty-two, had coitus January 24, 1889, followed by indurated chancre on the left side of the penis about February 10th, and ten days later by inguinal adenopathy. On the 26th of March, two good-sized conical papules appeared on the wrist over the styloid process of the left radius, and four on the corresponding palm. These ran an indolent course, became scaly, and left pigmentations. Three weeks after the appearance of these prodromal papules, a characteristic erythematous syphilide over the whole trunk and minute papules in the scalp, were noticed. Indurated nodule still present on prepuce.

My friend, Dr. H. G. Klotz, hunted thoroughly through all medical literature, and could not find any other information on this subject, and hence he cited me as the pioneer. He¹² reported two cognate cases.

These cases belong in the same category with successive chancres, and are evidences of the early infection of the whole system and the rather precocious evolution of the classical secondary climax. Perhaps it may be that the starting point of these prodromal lesions is a mild traumatism or some local stimulation. They can be readily understood if we possess an accurate knowledge of the pathology of syphilis.

¹² "Prodromal Localized Syphilides." *Journal of Cutaneous and Genito-urinary Diseases*, Sept., 1889, pp. 321 *et seq.*



FIG 1.



FIG 3.

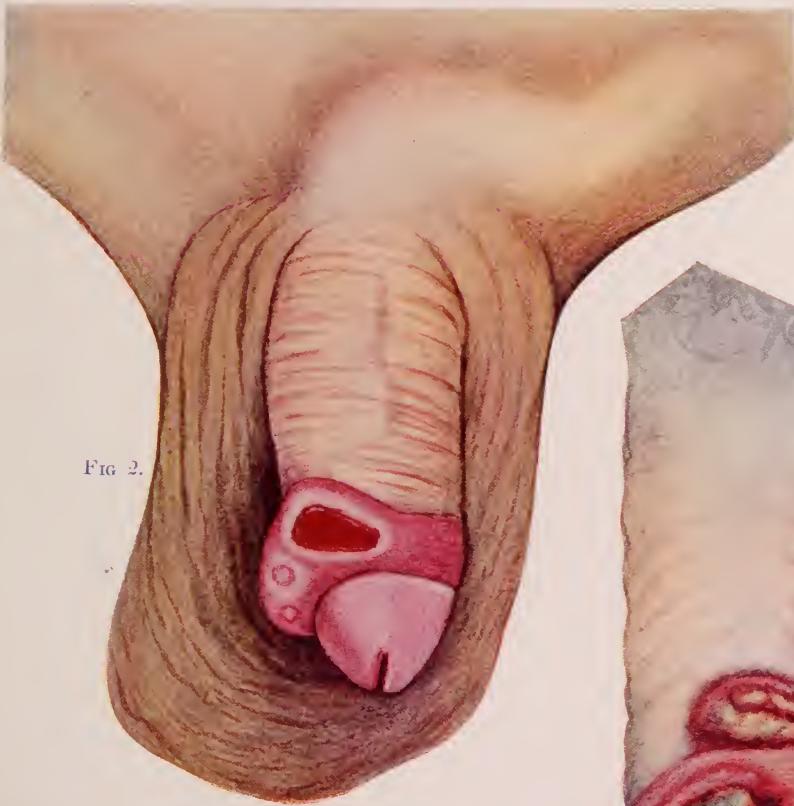
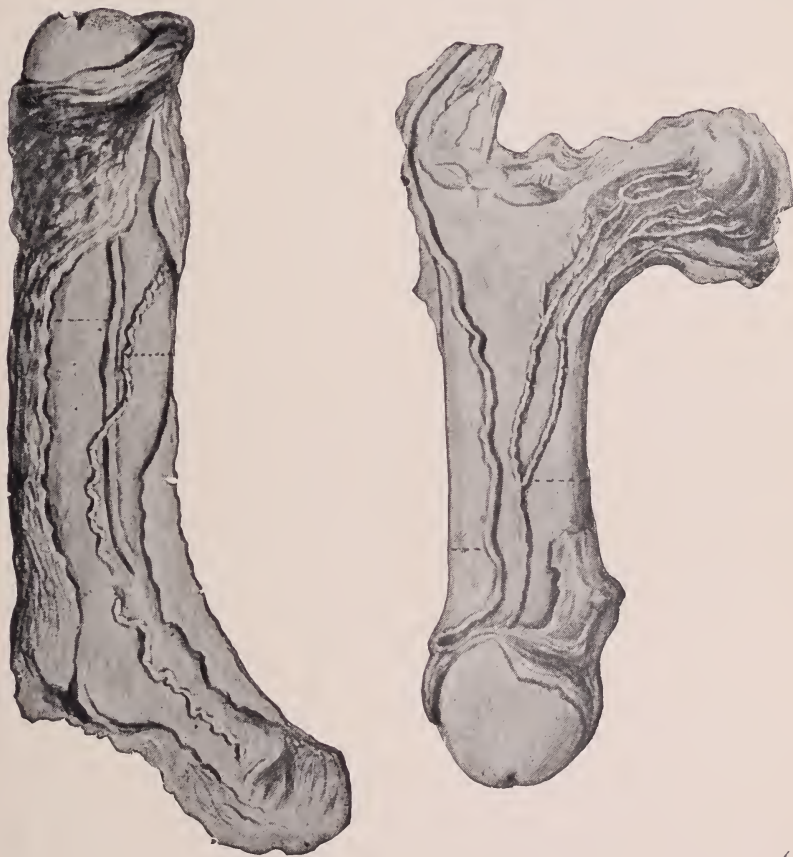


FIG 2.



FIG 4.



DISCUSSION.

Dr. WILLIAM T. CORLETT said that until recent years, so far as he knew, the prevailing dictum was that the initial lesion of syphilis was single. More recently, however, the view had been accepted that the lesion was oftentimes multiple. It was not unusual, in his own experience, to see two, sometimes three typical indurated lesions in a case of syphilis.

In reference to the other type of cases to which Dr. Taylor referred, where successive lesions developed in the course of syphilis, Dr. Corlett said he had never regarded them in the light of multiple chancres, but rather as lesions resulting from pus infection.

Dr. WILLIAM F. BREakey said that his more recent studies in regard to the development of syphilis had only confirmed his earlier observations, made many years ago, that the excision or cauterization of the initial lesion only tended to obscure the diagnosis, and had only an unfavorable influence upon the later manifestations of the disease. Of the cases of tertiary syphilis that came under his observation, he could safely say that in nine out of ten the initial lesion had been cauterized, and a false sense of security had thereby been imparted to the patient, in consequence of which systemic treatment had not been continued, and months or years after, the latent forces of the disease broke out in active forms.

In connection with the development of successive initial syphilitic lesions, Dr. Breakey asked whether such cases should be regarded as accidental and the result of multiple foci of infection, or whether it would be necessary to change the old theory in regard to the primary sore of syphilis usually being single, or simply the exceptions which proved the rule.

Dr. HERMANN G. KLOTZ said it was necessary to differentiate between successive chancres and coaptation chancres.

A CASE OF LICHEN SPINULOSUS

(Lichen pilaris seu spinulosus of the English writers.)

By JOHN T. BOWEN, M.D., Boston.

THE patient, whom I first saw in November, 1905, was a young man of 19, born near Boston, and of American parentage. When an infant he had had some affection of the skin of the face, probably an eczema. Other than this he had had no affection of the skin until about four months previous to his visit to me, during the summer season, when he first noticed an area of affected skin on the back of his neck. Since then there had been a gradual extension of the process to other parts, up to a few weeks before, when it had become stationary.

The patient was small but well nourished, of moderately light complexion. On his face and back there was a slight acne. The scalp presented a condition of what could not be distinguished from a mild seborrhoea sicca. The most prominent skin lesions were situated on the arms and legs, especially on the extensor surfaces. The lesions were not diffuse but grouped in patches of varying size, in some instances two inches and more in diameter, and with a tendency to follow in their long axis the lines of cleavage of the skin. The patches were seen to be made up of minute papules caused by the dilatation and accentuation of the follicular mouths, large numbers of the follicles in the areas occupied by the patches being affected, so that the papules were closely aggregated. A very prominent feature which became apparent as soon as the eruption was observed at close range, was the projection from the follicular mouths of small threadlike spines, about one-sixteenth of an inch in length. In some of the areas nearly all of the dilated and accentuated follicles contained these spines, in others only a part were thus affected. There was a moderate degree of hyperaemia present in most of the patches, so that they could be distinguished in this way from the sound skin when seen at a little distance; in some places however this hyperaemia was not present. When the hand was passed over these patches, no one would hesitate to make the familiar comparison of the sensation produced by a nutmeg grater.

As to distribution, the arms and legs were, as has been said, prominently affected. A very striking feature was the symmetry of the eruption. About the same number of patches were present on each arm, and both elbows were covered with very prominent lesions, with somewhat larger and longer spines than were present in most other situations. As a rule the patches were sharply bounded from the normal skin. The front of the chest was comparatively free. Toward the lumbar region on either side were a few groups, not sharply bounded. On the back were a number of patches, with symmetrical arrangement. On the anterior aspects of the thighs and knees there were numerous pretty sharply bounded areas, and in the latter situation the spines were particularly well developed. There was no disturbance of the general health, and subjective symptoms were absent.

The patient was seen at intervals during the next four months. Under nightly applications of oil of cade and salicylic acid in glycerite of starch, the affection steadily improved. The spines gradually disappeared, leaving at first an accentuation of the follicle, without hyperaemia. The spines and accentuated follicles remained longest on the elbows and knees, where, as has been seen, they had been most marked in the beginning. When last seen at the end of March, 1906, a slight pigmentation and roughness alone marked the site of the patches. On the elbows there was still a slight accentuation of the follicles. At the site of the patches the hairs were still wanting, with the exception of a few broken off hairs near the surface, which had survived.

This case presents to my mind quite a typical example of the affection observed chiefly in England, and described under the name of lichen spinulosus (*lichen pilaris seu spinulosus*). I do not know of any cases reported under this name in America, but I have little doubt that examples have been described under other names. Dr. Duhring tells me that he has seen several instances of it, although none of them were typical. The case I have described differs in only one particular from the English cases, and that is in the age of the subject, as lichen spinulosus occurs usually in children. The patient, however, was but nineteen and rather undersized, and moreover Crocker has observed it in a woman over thirty.

This affection has recently been very carefully studied by Adamson.¹ He describes it as occurring chiefly in children, perhaps

¹ *Lichen Pilaris, seu Spinulosus. British Journal of Dermatology.* March, 1905.

more often in boys, characterized by the appearance of fine projecting filiform spines, arising from the pilo-sebaceous follicles, the mouths of which are raised into small, acuminate, pale, or pinkish papules, and arranged in groups or patches on various parts of the limbs and trunk. Attention was first directed to this affection by Drs. Crocker and Colcott Fox in 1883 and since then some twenty cases have been shown at the London Dermatological Society. These cases are reviewed by Adamson, and after a comparison with somewhat similar affections described in France, he comes to the conclusion that some of the cases classed as *acné cornée* by French writers belong in this group of lichen spinulosus—certainly there is a great diversity in the descriptions of *acné cornée* by this school.

The fine filiform spines that are the chief characteristic of this affection have been said by Dr. Colcott Fox to occur in rare instances in lichen scrofulosorum and also in the miliary syphilide. To their occurrence in the miliary syphilide I can bear my own testimony, as I saw an example at the time this case of lichen spinulosus was under observation. Certain of the spines in the miliary syphilide bore a close resemblance to those of lichen spinulosus, yet the syphilitic character of the eruption as a whole was unmistakable. The English writers have also called attention to the fact that filiform spines may sometimes be seen in lichen planus, especially in the type of lichen planus with acuminate lesions. This association I have not met with.

Microscopically, Adamson found from the examination of a single case, that the follicle was distended at its upper third by a horny plug, which extended some distance beyond the level of the epidermis, and was made up of concentric lamellae of horny cells. There was an acanthosis of the follicular wall. The sebaceous glands were atrophied or absent. There was a very slight increase in cells of the connective tissue type at the neck of the follicle. This description, as Adamson says, is very like that of other follicular keratoses, and I must agree with Unna, Brooke and Adamson that the name lichen pilaris is badly chosen. Unna has proposed the term *keratosis follicularis spinulosa*, which seems very appropriate.

With regard to the etiology, there is little light. Adamson's suggestion that it may be of toxic origin, analogous to the arsenical keratoses, is as he admits merely an hypothesis, but an interesting one. Most of the cases, like the one I describe, have cleared up under treatment in a most satisfactory way. Crocker states that if untreated, it will last indefinitely. There are practically no subjective symptoms.

ALOPECIA CONGENITA.

By JEROME KINGSBURY, M. D., New York.

THIS disease or anomaly is a notably rare one, although the literature relating to it is quite extensive. This is undoubtedly owing to the striking character of the condition, to its frequent association with other anomalies of the teeth, nails, and skin, to its tendency to exist as a family affection, and lastly the very obscurity of its nature may possibly account for the attempts of some authors to determine its nosological position.

A number of writers have endeavored to collect the scattered material in the literature, but it is very evident that a complete study of the subject has hardly as yet been attempted because of the great tendency to individualism exhibited by this affection, and especially because of the great difficulty and even impossibility of knowing just what to include under a common head. While congenital alopecia is a simple enough term to comprehend, we must not forget that many of the cases represent much more than a local baldness, and are better described by such terms as general atrichia or hypotrichosis, in which more or less of the entire surface is involved—including not only naturally hairy localities but the smooth-skin as well. A study of the entire subject of hypotrichosis congenita would naturally include local anomalies of the hairy growth of particular regions, to the exclusion of the scalp. Technically mere thinness of the hair, imperfect growth of beard, and similar conditions not reckoned by writers on our subject, cannot be sharply differentiated from the latter. Very early family baldness would differ from typical hypotrichosis chiefly in the remoteness of its supervention.

Many individual cases of so-called hypotrichosis are seen at so late a period that we cannot always exclude the possibility of some early affection of the scalp to which the loss of hair was secondary. Several observers who have made microscopical studies assert that there is no essential difference in the conditions found in frankly congenital and early acquired alopecia.

It was formerly common to suppose that some neurotic factor was present in congenital alopecia, but writers of the present day

are nearly a unit in regarding it as a peculiar congenital anomaly dating from intra-uterine life. In many cases the process seems to be one of delayed inception of some hair, which when it does appear may grow in unusual localities and be coarser than normal. Since general hirsutes may often be accompanied with defective dentition, it is natural to assume that hypo- and hypertrichosis may be closely allied. This analogy is strengthened by the fact that the long hair with which most children are born is normally but temporary; being soon shed and replaced by a down which ultimately develops into permanent hair. An analogy has also been noted between these two successive growths of hair and the milk and permanent teeth.

We see here a number of chances for conditions due to arrested development.

The long temporary hair may possibly persist and increase in bulk. Or when shed, the down which replaces it may proceed no further in development and may perhaps undergo atrophy. Finally, no hair whatever may develop in intra-uterine life, although in some cases there may be a scanty, irregular growth, at a later period, due to the inception of a certain number of hairs.

We have also to consider that the condition of congenital or hereditary universal atrichia is believed to attack all the members of certain tribes of Australian aborigines. These people have not been seen by white observers, save in a few instances; and owing to their custom of secretiveness with incidental covering of exposed parts, have never been studied *en masse*. But the possibility of such a widespread prevalence of an anomaly places it beyond the limits of a mere freak of nature, and such a condition could no more be studied from the latter standpoint than could the pigmented skin and woolly hair of the negro or the peculiarities of skin and hair of the Mongolian or of the red man.

From all that has been said we infer that a thorough study of congenital hypotrichosis, including all literature bearing upon the subject is out of the question, let alone the possibility of collecting all known or supposed cases. The subject is too vast and too vague, and leads one into depths which extend into the very essence of anthropology.

A few attempts have been made to analyze clinical cases that have from time to time been reported by various observers. Thus Krauss (*Arch. f. Derm. et Syph.*, 1903, LXIV, 369) attempts to reduce the published material to three categories, as follows:

I. Congenital alopecia combined with defective dentition and anomalies of nails. Half a dozen or more writers have reported such cases. In some of them the fact of heredity was established.

II. Congenital Alopecia without defects of teeth or nails.

Here belong the two Australian cases of Mielucho-MacLeay and also Schede's cases.

III. Total congenital atrichia with occasional belated appearance of hairs. This condition is probably more common than the two preceding ones.

Classifications such as these, based only on a few individually reported cases, can have but a limited value. Certain important factors are left out, of course, for instance: the occasional occurrence of xeroderma or ichthyosis as part of the clinical picture. Again, in certain important groups of cases, not taken account of by Krauss, the family nail dystrophy is the most important feature, the hair being involved to a less degree. Thus Nicolle and Halipre ⁴ knew of no less than thirty-six cases of this nail and hair dystrophy in six generations of a single family; and C. J. White ⁵ of Boston has partially duplicated this record in a family of French Canadians. Such instances, reported primarily as nail dystrophies, although hypotrichosis was also well developed, evidently escaped the German case collectors.

Perhaps at present we can only depend, without hasty generalization, upon such cases as have been described with more or less detail. They have the merit of being sound as far as they go. It is obvious that not much can be learned from casually mentioned cases. Those only are worth reproduction which enter somewhat into detail.

Dermatologists writing in the neighborhood of a century ago observed congenital baldness as a family disease; both with and without anomalies of dentition. Rayer ⁶ saw one case in an adult with only a fine down on the scalp and eyebrows; absence of eyelashes; scanty beard; isolated hairs in axillæ and on pubes. However, this man had abundant growth of hair on the inner side of the legs. Thurnam ⁷ (about 1848) saw total absence of hair in two first cousins, but the condition seems to have been outgrown. Dentition was also delayed.

Hill wrote an interesting note to the *British Medical Journal*, 1881, vol. I., about two cases of congenital permanent atrichia in Australian aborigines. A third member of the same family who

had died a short time before, was said to have been similarly affected. Hill was informed of the existence of an entire tribe in the interior of Queensland, which exhibited the same peculiarity, but for reasons already alleged, this report could not well be verified. Hill's two cases were studied thoroughly by the Russian traveler Mielucho-MacLeay.⁸ The cases in question were thought to have sprung from the tribe in Queensland. Intermarriage with normal aborigines had diluted the inheritance, for some of the family were normal. It is worthy of note that in general the aboriginal Australian is unusually hairy.

Schede's⁹ case (1872) of a completely hairless brother and sister is of much interest. The children were otherwise normal and there was no family taint. Schede made perhaps the first microscopical study of this condition on record. The scalp was mainly normal. Rudimentary hair follicles had been transformed to atheromatous cysts. No sign of distinctive hair-elements.

Jones and Atkins¹⁰ (1875) corroborated Schede's microscopic findings in a similar case.

Quilford's¹¹ case (1883) is of interest. The patient, a man of forty-eight, was toothless and had xeroderma (no sweat glands), but had a good beard and pubic and axillary hair. He had only down on the scalp.

Luc (*Thèse de Paris*, 1879) describes the case of a girl born completely bald, but at the age of six some thick sparse hair began to appear. The skin presented the picture of xeroderma.

Hutchinson¹² saw a boy three and a half years of age with complete congenital alopecia. His mother had xeroderma and had herself become bald at the age of six.

Molènes¹³ saw a girl who was said to have been born perfectly bald save for a slight down. The eyelashes were replaced by lanugo hairs.

The mother and a brother had experienced a temporary baldness in childhood, but completely recovered. Molènes saw the patient when sixteen months old, and at this time the scanty eyelashes had fallen out and alopecia was complete. The skin was very smooth but follicles preserved. Dentition normal.

Audry's¹⁴ case seems unique. The patient, a youth of eighteen, had a peculiar case of congenital alopecia, as it seemed to follow the sutures of the skull. The author connected it with a mild degree of hydrocephalus which had undergone resolution.

Fordyce¹⁵ described a case of very scanty growth of hair in

a newborn child which was soon shed, only a few hairs remaining in the eyebrows. No family predisposition.

Abraham¹⁶ saw a woman of twenty-three with complete alopecia of eyebrows, limbs, and trunk, and but very slight growth of hair on scalp, pubes, and axilla. She was born with lanugo, but this was soon shed. She had been married eleven years and was the mother of two bald children. They were born with scanty hair, but it was soon shed.

Ziegler,¹ to whom we are largely indebted for a summary of the best-known cases, describes an interesting observation of his own. Patient, a girl of 17, was one of 11 children, none of whom showed any anomalies of hair. The patient, born bald, was healthy. After menstruation set in, a little pencil of hair appeared over the occiput at each period, but it disappeared in four days. The girl is healthy, nails and teeth sound. Sparse normal hair on eyebrows and eyelids. Soft down on cheeks and forearms. Scalp, pubes, and axillæ bare. Microscopic examination of scalp showed blind sebaceous and epithelial ducts, the latter provided with erector muscles, indicating abortive hair follicles. No signs of hair papillæ or rudimentary hairs.

Pincus's² case is unique; a boy aged 8, whose father was almost hairless since first few months of life. Mother normal. Sister, aged 12, has strong growth of hair but upper lateral incisors missing. At birth boy had a mouse-like growth of hair, but this was shed. At 9 months bald. A few hairs appeared and were shed at regular intervals. While nominally the subject of universal atrichia, there was much individual variation; down here, a few scattered coarse hairs there. The developed hairs showed every variation in length, thickness, curliness, pigmentation. Such hairs could often be pulled from their follicles, bringing out the root-sheath. The scalp showed a singular toleration to injuries. The skin in general seemed free from xeroderma. Nails not quite normal—being flattened, thin, and rather brittle.

At time of examination patient was undergoing second dentition, but lost all milk teeth. A considerable number of permanent teeth failed to appear on time.

Pincus, referring to earlier writers, quotes Bownes, who had experimented on hairless goats. The latter author would make a distinction between *alopecia*, in which hair present at birth is shed, and *hypotrichosis*, in which hair is unable to grow or reproduce itself. Alopecia may be due to some disease, while hypotrichosis

represents an anomaly of development. It has already been stated that the long hair present, as a rule, at birth is shed, and that the down which replaces it should develop with natural hair—longer, stronger, and pigmented. The hair of the bearded area, axillæ, pubes, etc., should appear at stated times. Hypertrichosis, as a rule, consists in a persistence of this birth-hair, which is not shed and continues to increase.

In the author's case the birth-hair was shed; but the normal evolution, preceding from lanugo to the development of natural hair, was largely, but not completely, interrupted. The microscopic appearances of the scalp, in regard to the presence of aborted sebaceous glands and follicles, did not differ materially from the findings in secondary alopecia due to disease of the scalp.

Bettman (*Arch. f. Derm. u. Syph.*, lx. p. 343) has recently made a very thorough microscopical examination of a personal case of congenital alopecia. While his general findings agree with those of his predecessors in most respects, he seems to have shown the possibility of the existence of a permanent congenital atrichia dating from intrauterine life. In other words, there may occur, in addition to arrest of development after birth, and retardation of the normal appearance of hair, a pure atrichia of intrauterine origin, which is characterized by the complete absence of hair, temporary or permanent, and due to intrauterine causes which are naturally unknown.

Having briefly alluded to the salient features of the majority of recorded cases of hypotrichosis, I desire to report some cases of this family dystrophy which recently came under my observation at the Presbyterian Hospital Dispensary.

It may or may not be a pure coincidence that the patients, three sisters, are of French-Canadian parentage and that those described by Dr. White were French-Canadians. It is, of course, not entirely impossible that the two families may have sprung from a common stock.

I append a brief sketch of my cases with photographs which will, I believe, give a better general idea of the condition than would a detailed description.

Elmina L., ten years of age, was born in Canada. At birth there was but a scant crop of hair, which was completely lost when the child was three months old. The eyebrows had never been stronger than they are at present.

Leona L., eight years of age, was born in Massachusetts. Had

very little hair at time of birth, and most of this fell out a few weeks later. The hair over the frontal region has since grown more profusely than that of her elder sister.

Alexina L., five years of age, was born in Massachusetts. This child had considerably more hair at time of birth than had either of her sisters, and more of it was retained.

The general health of the children has always been good and none of them had any of the severer diseases of childhood. Dentition is said to have been normal, but the fingers of all three children present a club-shaped appearance and the nails are short, thickened, and broken. Toe nails are similarly affected.

The father of the children is thirty-two years of age, is in good health, and has thick dark hair and normal nails. The mother died three years ago after an obstetrical operation at the age of twenty-eight. She had no abnormality of hair, but the finger tips and nails were deformed and atrophied. A brother of the girls has normal hair and nails. He is now seven years old. The maternal grandmother of the children had normal hair and nails, but the maternal grandfather had the same abnormality of hair and nails that his granddaughters now present. The father of the maternal grandfather is said to have been absolutely bald all his life, and to have had deformed finger ends. Two of his brothers were also absolutely hairless.

A table giving the head measurements is appended, also the reports of blood examinations and a microscopical study of excised skin from the head of the eldest girl.

The biopsy was made at a site where macroscopically the alopecia seemed to be complete.

I am indebted to Dr. George A. Tuttle of the Presbyterian Hospital Laboratory for the description of sections from scalp and to Dr. Fred Wise, House Physician, Skin and Cancer Hospital, for examination of blood.

HEAD MEASUREMENTS.

| | 10 yrs. | 8 yrs. | 5 yrs. |
|------------------------|---------|--------|--------|
| Occipito-mental | 18. | 17.5 | 16.5 |
| Occipito-frontal | 16.5 | 16. | 15.5 |
| Suboccipito-bregmatic, | 15.5 | 15. | 13.5 |
| Fronto-mental | 13.5 | 13. | 13.5 |
| Bi-parietal | 15. | 13.5 | 14. |
| Bi-temporal | 13. | 12.5 | 12. |

BLOOD FINDINGS.

(Jenner Stain.)

E. L.—10 years.

Red corpuscles normal in number, contour normal, centres pale.

| | per cent. |
|-------------------|-----------|
| Hæmoglobin | 52. |
| Polynuclear | 68.5 |
| Small Mononuclear | 21. |
| Large Mononuclear | 6.2 |
| Eosinophile | 4.3 |

L. L.—8 years.

Red corpuscles normal in number, contour normal—pale centres.

| | Per cent. |
|-------------------|-----------|
| Hæmoglobin | 68. |
| Polynuclear | 69.2 |
| Small Mononuclear | 19. |
| Large Mononuclear | 4.8 |
| Eosinophile | 6. |

A. L.—5 years.

Red corpuscles normal in number and contour, centres pale.

| | Per cent. |
|-------------------|-----------|
| Hæmoglobin | 60. |
| Polynuclear | 70.5 |
| Small Mononuclear | 16.5 |
| Large Mononuclear | 6.4 |
| Eosinophile | 6.6 |

MICROSCOPICAL EXAMINATION.

A considerable number of sections of the scalp, about .5 cm. long, were examined. Hair follicles were found to be present in small numbers, three to five or six in a section. Most of the follicles show marked atrophy. But a few of them are anatomically perfect with a distinct bulb and papilla. In these there is evidence of beginning hair formation, but in no case does the hair reach the surface. In the majority of the follicles, however, there is no evidence of any hair formation, and the bulbs are imperfectly de-

veloped. Sebaceous glands are present with most of the follicles and the sweat glands are normal. The fact that a number of the follicles appear to be well developed and show some evidence of beginning growth of hair, suggests that it may possibly be a case of delayed, rather than one of total absence of, hair growth.

G. A. TUTTLE.

Such conclusions as may be drawn from the recorded material are as follows:

I. Cases are entirely too few and dissimilar to permit of permanent conclusions. Naturally we refer to published cases, for doubtless there are many instances of local and relative atrichia which are not reported.

II. Certain reported cases appear to indicate the presence of developmental anomalies of the deepest sort; such as involve the very elements which underlie the differences that subsist between races as the classification of the latter is based largely upon peculiarities of hair and skin.

III. The frequent coincidence of anomalies of the hair, nails, teeth, and skin, together with the hereditary characters of many cases, while not involving the questions of racial characters and atavism, points to deep-seated anomalies of certain tissues which have an intrauterine origin. They must depend in some way upon the pathology of the embryo, a subject that is but little understood. The fact that the epiblast is alone involved in these cases points to some affection of this layer during the early months of intrauterine life.

IV. The microscopical findings are, on the whole, rather disappointing. Beyond showing the possibility that in some cases the embryonic substratum of the hair follicles undergoes a complete and early arrest of development, the other observations simply denote that the natural evolution of hair already under way, may be arrested wholly or in part at various periods, by factors which are either unknown or which represent certain conditions of the epidermis, due in some cases to well-understood diseases.

V. On account of the great variability of individual cases, the questions of diagnosis, prognosis, and treatment must remain more or less obscure. The general diagnosis should, indeed, be easy enough, for we have only to exclude types of acquired baldness par-

ticularly the characteristic defluvium produced by X-radiation. But diagnosis of special types involving prognosis is much more difficult and would be influenced by the family history, and, to some extent, by the results of microscopical examinations. There are a few classic cases in which not only the atrichia, but accompanying dental defects, seem to have indicated only a retardation of normal involution. Hence, it is not strange that writers of a score or more years ago, having but limited material to draw upon, should have given a favorable prognosis for these cases not unlike that of alopecia areata. And the very fact that cures did result at times, seems to have led to the assumption of a neurotic origin. With the accumulation of material, however, the hopeless character of the majority of these cases is now generally recognized. Still bearing in mind the few recorded cases of cure, we need not regard this affection as absolutely hopeless, although there is no very satisfactory evidences that treatment of any sort has ever materially modified the outcome. Naturally, therapeutic measures directed to any underlying general or local condition would be indicated.

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FIG. 1.

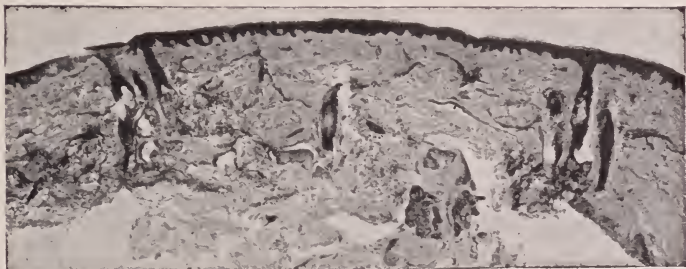


FIG. 2.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

341st Regular Meeting, April 24, 1906.

Dr. GEORGE H. FOX, President.

A Case for Diagnosis. Presented by Dr. DADE.

The patient was a young woman affected with a dark red enlargement of the tip of the nose which had been present for the last five years. This tumor-like enlargement is not especially hard or lobulated and there is no tendency to breaking down. Various methods of treatment have been tried, such as scarification, injection of alcohol and for the past three months the X-ray. Dr. Dade thought there were many points in the case resembling rhinoscleroma, but he was unwilling to make a diagnosis without a microscopical examination.

Dr. FORDYCE regarded the growth as a slow growing sarcoma similar to the case recently shown before the Society by Dr. Lustgarten. Dr. Lustgarten found upon a microscopical examination, that the growth in his case was an angio-sarcoma showing very few mitoses.

Dr. JOHNSTON considered the diagnosis of rhinophyma excluded by the absence of sebaceous or epithelial hypertrophy. He agreed to the diagnosis of angio-sarcoma. He opposed operation on account of known tendency to recur. He suggested electrolysis as better adapted to secure vessel occlusion without much scarring.

Dr. SHERWELL inquired if there were any uterine symptoms in this case. He had observed cases where fibromas or other troubles of the uterus gave reflex vascular symptoms on the face and especially the nose. Such cases improved under ergot and other remedies used in rosacea. He thought the appearance of the nose had been so altered by the treatment that a positive diagnosis was difficult.

Dr. KLOTZ saw some features of rhinoscleroma. The growth was rather slow but he did not consider this as excluding such a diagnosis. The color and consistency was very much like that of rhinoscleroma.

Dr. JACKSON was inclined to the diagnosis of sarcoma. The growth did not seem to him to have the consistence nor the color of rhinoscleroma.

Dr. FOX did not consider the color or hardness as suggestive of rhinoscleroma. He differed from Dr. Sherwell as to the effect of uterine disease upon the face. He thought the uterus had no connection with rosacea, acne, chloasma, etc.

Dr. DADE, in closing, said there had been no question of rosacea or rhinophyma. The color was not inconsistent with rhinoscleroma. Ninety per cent. of those cases started on the outside of the nose. He wished suggestions as to treatment.

Dr. FORDYCE suggested arsenic hypodermically and the X-ray. The case previously referred to had been improved by this therapy.

Tuberculosis of the Nose in a Child. Presented by Dr. Fox.

The patient was a young girl of poor development, presenting a serpiginous ulceration around the wing of the nose and upper lip. There was a sero-purulent nasal discharge and enlarged glands of neck.

Dr. JACKSON agreed with the diagnosis of tuberculosis.

Dr. KLOTZ said the general condition of the patient suggested tuberculosis. The child gave a history of having had measles since the beginning of the illness—some simple abrasion might have become infected with tubercle bacilli in connection with the measles. The glands were distinctly perceptible.

Dr. JOHNSTON thought the case was a granulomatous process due to pus organisms. In this connection he recalled two cases recently observed, a woman aged twenty and a man aged thirty-five. Both had been put upon mercury and iodides, but the condition retrogressed. The ulcerations became more worm-eaten-like than ever. Scrapings from the ulcers showed only streptococci. The cases were given tonics and local use of ichthyol and healing took place promptly.

Dr. WINFIELD said the ulcerations in the case shown were similar to those found in children who had had measles, scarlet fever, etc. In those cases a discharge from the nose had been the starting point.

Dr. WHITEHOUSE had thought of tubercular disease at first, but the idea of a granulomatous process due to pus organisms in a soil particularly adapted to it seemed a more reasonable one. The short duration, two months and the general poor condition of the child were in favor of this diagnosis.

Dr. FORDYCE said that he considered the process tuberculous. The majority of ulcerative lesions in this locality were of such a nature and he assumed this one to be such unless it could be proved to the contrary.

Dr. MORROW considered the case as tubercular. The enlarged glands under the jaw and chin were of the nature of a tubercular bubo. The chances of tubercular infection were so numerous. He referred to a case recently under his observation in a child who was scratched by a dog on the lip and cheek. In a few months tubercular nodules developed with enlarged glands extending down on the neck, larger than in the case presented. The dog referred to in his case was the pet of a poor woman dying of pulmonary tuberculosis. This woman was in the habit of expectorating on the floor and it is very probable that the dog's claws were contaminated. The tubercular nature of the disease was unmistakable.

Dr. Fox, in closing, said that to him the sinuous margins were quite characteristic of a tubercular origin. Syphilis was out of question.

Tuberculosis Verrucosa Cutis. Presented by Dr. MEWBORN.

E. S., aged sixty-one years. Paper-box cutter. Denies all venereal history. Four years ago while repairing a box-cutting machine wounded dorsal surface of thumb. The wound never entirely healed but left a papular or warty-like growth. This growth has slowly spread around thumb and on the hand until area affected extends down to wrist. The lesions on the palmar and dorsal surfaces of the thumb were quite warty, dry and filiform projections. Extending down on the dorsal surface of the hand was a sinuous line of tubercular nodules. On the palmar surface over the thenar eminence was a similar line of tubercles, the area lying between these two lines was much redder than normal and slightly atrophic, as if it had been the site of lesions which had healed. The

patient denied that this had been the case. The disease had given the patient very little discomfort as he had been in the habit of using sand paper to file down the hard warty-like surfaces. There were no sign of softening or breaking down of nodules. No signs of minute abscesses.

Dr. Klotz thought it unusual that there were no pus foci.

Dr. Fox thought the case quite characteristic, but peculiar in the extensive involvement of the palmar surface.

All the members present agreed in the diagnosis.

Pigmentary Sarcoma of the Leg with Coexisting Verrucose Eczema.

Presented by Dr. Fox.

The patient had been shown some time ago with marked pigment sarcoma of the leg. It was again presented on account of the verrucose eczema of the left leg.

Dr. FORDYCE considered the case to be one of the Kaposi type of idiopathic hemorrhagic sarcoma. The papillomatous development over the leg, however, was an unusual feature in that affection. The occurrence of these papillomatous conditions in various types of dermatoses is as yet unexplained, and it would be worth while to investigate the etiological factors in this condition. He had seen it in two cases of dermatitis herpetiformis, but was unable to say whether it was due to the primary condition or to a secondary pyogenic infection.

Dr. Klotz said the affection of the skin in the left leg was evidently a secondary one, due to a lymphatic obstruction at the groin. He suggested that it would not be out of place to try antisymphilitic treatment. He referred to a case of papular verrucose condition of the leg accompanied by circumscribed patches of gangrene, which had been much improved by antisymphilitic treatment.

Dr. JOHNSTON referred to the good result obtained in Wende's case of the Kaposi type of hemorrhagic sarcomatosis, which had been cured by arsenic injections. It is true that about 2400 injections had been used to obtain this result.

Dr. Fox, in closing, said that the case had been quite typical of Kaposi's sarcoma. The glandular enlargement and lymphatic obstruction had developed secondarily.

Pityriasis Rosea. Presented by Dr. MEWBORN.

Well nourished Italian, aged twenty-nine years. Occupation that of scene-shifter on the stage. Married for one and one-half years.

Gives a very neurotic history; had chorea until the age of sixteen, about this time had an attack of cholera (?) went into a cataleptic state and was prepared for burial. Had malarial fever eight or nine years ago which recurred periodically during the following two years. Denies gonorrhœal history, but says that five years ago he had a venereal sore, accompanied by a suppurative bubo. He had a generalized rash resembling the present one. (Syphilis?) A year later had typhoid fever and three years ago had appendicitis for which he was operated upon. Scars of the bubo and appendicitis operation are visible, but no other scars noticeable. The rash, more prominent on front of chest and abdomen, extended down flexor sides of arms and on thighs half way to knees. Patches are round and oval with slightly depressed scaly yellowish

centers, barely raised edges with border of partly detached epidermis toward center of patch.

Dr. DADE asked if anyone had seen a recurrence of pityriasis rosea.

Dr. SHERWELL said that he had seen a case where the rash had recurred twice coincidentally with lactation and once later under the observation of another physician.

Dr. KLOTZ thought the localization was not quite typical of pityriasis rosea and that pityriasis versicolor was still to be considered.

Dr. Fox had frequently seen cases of pityriasis rosea recur. One point he would like to call attention to in this connection was the fact that he had frequently seen cases of eczema marginatum which remained limited to the axillae and groins, at times develop outlying patches indistinguishable from a pityriasis rosea.

Dr. MORROW said that in the Sandwich Islands he had seen a great many cases of eczema marginatum, in fact more than he had seen in all the rest of his experience. These cases, while showing the greatest variety of affected areas axillae, groins, submammary, etc., he did not recall a case with outstanding patches.

Dr. KLOTZ said the rapidity of its spread and the history of several recurrences made him think of an acute exacerbation of pityriasis versicolor, particularly with reference to Dr. Allen's observation that pityriasis versicolor was liable to perpetuate itself on hairy parts. Pityriasis rosea often required six weeks to reach from the shoulders to the legs.

Dr. SHERWELL said, in rebuttal of previous speaker, that it was his experience that pityriasis rosea was particularly rapid in its spread. Versicolor being on the contrary especially slow in spreading as a rule. While the question of eczema marginatum was considered he referred to diabetic eczema marginatum, particularly in males, occurring between the scrotum and left thigh. He thought it possible in these cases that the skin macerated by diabetic urine afforded a soil for yeast fungi.

Dr. MEWBORN said that he had made a microscopical examination of the scales to exclude pityriasis versicolor. The fungus found was a septate mycelium staining with a central granular dark portion with clear unstained margins, like a mould or a trichophyton, but in no wise resembling the tubular-like form of microsporon furfur, with its grape-like cluster of round spores. He had observed a case of generalized, erythematous form of pityriasis versicolor, which bore a considerable resemblance to pityriasis rosea, but in that case the microsporon furfur literally swarmed in the scales of epidermis. As to Dr. Fox's observation about eczema marginatum, he had found a trichophyton abundantly present in some of those cases and saw no reason why outlying patches could not be present. It was interesting to remark in this connection that patches of erythrasma might be confused with eczema marginatum. This was easy to differentiate by a microscopical examination which would show the microsporon minutissimum, which he had been able to do in a number of cases.

A Case of Dermatitis Herpetiformis (Papulo-vesicular Type). Presented by Dr. FORDYCE.

The patient was a man of forty years old with a negative family history. He had been a heavy drinker for ten years, excepting during the last eighteen months. Eighteen years ago he was ill for six months with inflammatory rheumatism, but has had no attacks since. His present trouble began twelve years ago as an itching papular eruption over the

chest. It came out in distinct crops and the itching was always more intense at night. After several months it disappeared leaving small rounded, non-pigmented superficial scars. Since that time he has had one or more attacks during each year. The disease is always worse during the winter.

Present condition. He now has a widely disseminated eruption involving the trunk and extremities, showing lesions in various stages of evolution. The eruption begins as cutaneous pea-sized or smaller papules of the color of the skin; after a day or two a small vesicle appears on the surface which is usually removed by scratching, leaving small hemorrhagic crusts. The papule then gradually disappears and is followed in some cases by the scar which has been previously mentioned. The eruption showed very little tendency to grouping, and altogether presented a somewhat different clinical picture from what we usually see in dermatitis herpetiformis. His urine examination showed a faint trace of albumin, very little indican, some pus cells, a few red blood cells and calcium oxalate crystals.

His blood examination revealed an eosinophilia of 15%.

All the members agreed to the diagnosis.

Dr. Fox said that in the last edition of his atlas, there were two plates of dermatitis herpetiformis, one taken of a case seen ten or twelve years ago, in which there was the same eruption, only much more abundant.

Dr. FORDYCE said the case was not the usual clinical picture in that the lesions seemed to begin deep down in the skin, were uniform in type and left little or no pigmentation.

Epithelioma of Bridge of Nose Cured by X-Ray. Presented by Dr. FORDYCE.

The patient was a woman about sixty years of age, who had had a small papule in this place for many years. During the past year it had increased rapidly in size. An attempt was made on two different occasions to cure it by curettage followed by chloride of zinc. It recurred and attained the size of a fifty cent piece with a distinct elevated margin. Microscopic examination showed that it was a malignant squamous-celled tumor and not the usual rodent ulcer type. It yielded slowly to X-ray treatment, but after repeated and prolonged exposures a reaction was produced and eventually it completely disappeared. The total number of exposures amounted to five hours. She now has a smooth, slightly depressed scar with very little deformity,—a result which is in every way superior to that which would have followed surgical interference.

Pityriasis Rubra of Hebra. Presented by Dr. Fox.

Patient is a girl, eleven years old, born in Scotland. At three years of age had scarlet fever. Three years ago she had an attack similar to the present one which lasted six months and from which she re-

covered. One year later a second attack which has lasted up to the present time. The eruption was first noticed on the palms, later upon the face and finally became universal. Hospital treatment for the past three months with inunctions of equal parts of lanoline and vaseline has produced a considerable improvement. The skin is less scaly and more pliable than formerly.

Dr. Fox said that under treatment the case had markedly improved. In another case the legs and thighs in time became so flexed that it was difficult to extend them.

Dr. WHITEHOUSE remarked on the extreme rarity of the disease. One saw many cases of exfoliative dermatitis, but he had not seen a case of pityriasis rubra (Hebra) since that of a young woman some fifteen years ago, in whom the disease began early in life. She lived to the age of about twenty eight.

Dr. JOHNSTON recalled three cases seen at the Edinburgh meeting of the British Medical Association, in 1898, one of which resembled the present case closely. Unna at that meeting had diagnosed the case as parakeratosis variegata. The main distinction as to prognosis between pityriasis rubra and variegata was that while they were equally resistant to treatment, parakeratosis variegata did not terminate fatally.

Dr. SHERWELL had seen three cases in Brooklyn which had apparently gotten well under oleagenous treatment. The lesions had been generalized over the entire body, nails were typically affected, etc.

Dr. JACKSON said that he saw the girl when she came for the first time to the Vanderbilt clinic. He was now impressed with the great improvement in her physical condition. She had gained in weight, and her color was much more healthy. Yet in spite of this her condition, as far as the skin was concerned, had not improved.

Dr. Fox said that emollients and preferably Cheseborough's vaseline were the best local applications; plenty of sunshine and good food.

Dr. MEWBORN said that on theoretical grounds sunshine should be avoided in a condition of the skin in which the normal protection of the body against the actinic rays was lacking.

Psoriasis of the Palms. Presented by Dr. FORDYCE.

The patient was a boy about thirteen years old. He had noted the present eruption three or four months ago. He had never had a previous attack. The case was chiefly interesting because of the unusual distribution of the affection, which was limited to the palms and flexor surfaces of the forearms, with the exception of a few scattered lesions over the extensor surfaces of the upper extremities.

Epidermolysis Bullosa Hereditaria with Intention Tremor. Presented by Dr. FORDYCE.

This patient had been previously presented before the Society on one or more occasions and had been the subject of an elaborate report by Dr. Elliot (*N. Y. Med. Journal*, April 21 and 28, 1900). He was now thirty-two years old and had had the disease since infancy. He had been free from the eruption at times for six weeks or two months. Formerly the bullae developed within half an hour after the parts were exposed to irritation or pressure; it now required from twelve to twenty-four hours for them to appear. He now presented fresh bullae over the ulnar side of the wrist and the upper part of the thighs. In addition to these

recent lesions he had numerous pigmented spots about the axillae, abdomen, thighs, arms and back.

Regarding his nervous phenomena, he nowhere showed a disturbance of tactile, pain or temperature sensations. He had a fine tremor of the head, lips, tongue, etc., and a coarse tremor of the extremities which was of the "intention" type. The right knee jerk was exaggerated, the left diminished. No Babinski, no ankle clonus; the abdominal reflexes were exaggerated in the upper part, in the right lower quadrant less than left. His cremasteric reflexes were more sluggish on right side. No Romberg, no ataxia. His speech was not affected and his pupils reacted equally to light and accommodation, there being nystagmus to the right side only. The diagnosis rested between an atypical form of multiple sclerosis and hereditary tremor of unknown etiology.

His urine showed a very faint trace of albumin, a moderate amount of indican and a few pus cells.

His blood count was 4,540,000 red cells, haemoglobin 60%, leucocytes 9,000—of which there were polynuclears 64%, large lymphocytes 16%, small lymphocytes 14%, eosinophiles 3%, transitional 1%, large mononuclears 2%.

Dr. WHITEHOUSE remembered seeing the case when he had been presented by Dr. Elliot, about eleven years ago. At that time either the tremor had not developed or was so slight as to have been passed over without significance. The general condition of the patient had materially deteriorated since then.

Lichen Planus, Circinate Form. Presented by Dr. Fox.

Patient is a German, sixty-four years of age. Present eruption began four months ago. Has always been dry and moderately pruritic. On flexor aspects of forearms, on trunk and legs are seen aggregations of papules forming rings with dark depressed centers.

A. D. MEWBORN, *Secretary*.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The last meeting for the season 1905-1906 of the Philadelphia Dermatological Society was held in the amphitheater of the Medico-Chirurgical Hospital, 17th and Cherry Streets, Philadelphia, on Tuesday evening, May 15, 1906, at 8:30 o'clock, Dr. M. B. Hartzell presiding.

A Case of Dermatitis Vegetans previously exhibited by Dr. Hartzell when the disease was at its height was again brought before the Society to show the marked improvement that had taken place under the most sedative treatment, which consisted largely of the local application of carbolized petroleum (gr. v to $\bar{3}$ i). At a former meeting the possibility of the bromids as an etiologic factor in this particular case had been entertained by one of the members. In order to test this view of the condition, bromids were administered to the exclusion of all other treatment without perceptible effect. At the present exhibition of the patient,

the disease was practically cured, although how far this effect was produced spontaneously was left open to discussion. The points of interest in this case, namely, the abrupt onset, the bilateral character, and the short duration of about six weeks, were again emphasized.

A Case of Generalized Papulo-vesicular Eruption Occurring in a Child, Five Years of Age was shown by Dr. Stelwagon. The condition had existed since birth, and was rather widely distributed over the entire body. The lesions were pin-point to pin-head in size, and papulo-vesicular in type. They were less numerous upon the legs than elsewhere. There was severe itching, most marked on the trunk. The condition was regarded as a case of prurigo mitis, or as one of those cases that may be classified as between the disease just mentioned and lichen urticatus.

A Case of Tinea Circinata resembling Impetigo Contagiosa was brought to the attention of the Society by Dr. Frank Wallis. The patient was a child, eleven years of age. The duration was indefinite. The condition consisted of about six circinate lesions, varying in size from that of a dime to that of a silver dollar, located upon the dorsum of both hands. The lesions were more or less pustular, and some possessed the collarette such as is produced after the rupture of a bleb. The presence of the trichophyton fungus had been demonstrated by the microscope.

A Case of Probable Mercurial Stomatitis was presented by Dr. Schamberg. The patient was twenty-nine years of age, and had noticed the condition for about four weeks. According to the history, the patient had been employing mercurial inunctions to himself for a more or less considerable period prior to the mouth changes. The oral condition consisted of an erosion and bleb-like condition of the mucous membrane of the lips. There were also large bullous, pustulo-bullous, and vesico-pustular lesions, rather superficial in character, on the body. The mouth condition resembled a local pus infection. (This case has since developed into a pemphigus vegetans.)

A Case of Hydroa Aestivale was exhibited by Dr. Schamberg for Dr. Fink. The patient was a child about eleven years of age. The eruption was said to have appeared before during the summer months of the previous year. The condition seemed to be worse when the patient was overheated. Marked hyperidrosis was present. There were about a dozen lesions, and in the center of some of these, scarring was observed. Some of the lesions were apparently hemorrhagic. The condition was observed only in the forehead and cheeks.

A Case of Squamous Syphilid confined to the palmar surfaces of the hands and fingers was shown by Dr. Davis to illustrate the refractory nature of such conditions. The lesions presented a well-marked ser-piginous outline, especially at the wrists, and at times suggested dermatitis repens. The patient was a man 35 years of age, and had been under

the observation of several of the members for varying periods. The condition had persisted for a number of years, despite the most careful treatment.

A Case of Blastomycosis was shown by Dr. Schamberg for Dr. Fink. The patient was 44 years of age, and gave a history of having had the condition for about four months. The disease was situated upon the dorsal surface of the right hand, extending from the knuckles to the wrist, and from the radial to the ulnar border. The appearance presented by the affected area was typical of the disease. The blastomyces had not as yet been demonstrated. The clinical features were considered sufficiently diagnostic.

A Case of Lupus Vulgaris was exhibited by Dr. M. B. Hartzell. The patient was a colored girl, about 20 years of age, and stated that the condition had existed for approximately four years. The disease was situated on the right cheek, and was about the size of a silver dollar. The unusual feature of this case was its markedly verrucous character. The treatment employed in this case was exposure to the X-ray.

A Case of Probable Early Alopecia Areata was presented by Dr. Davis. The patient was 38 years of age, and the history as regards infectious fevers or nerve shocks was entirely negative. For five weeks past he had noticed that his hair came out in large quantities, with very little resistance. The patient had suffered with considerable headache. There was no seborrhœa of the scalp, and a careful examination of the body failed to demonstrate any manifestations of syphilis.

A Case of Varioliform Syphilide was brought before the Society by Dr. Schamberg. The patient was a colored girl, 17 years of age. The condition had existed for about ten days, and in many particulars resembled both varicella and variola. There were a large number of lesions all over the body, vesicular, papular, and some pustular in type. There was a good vaccination mark. The case was shown in order to demonstrate the ease with which this type of syphilis might be confused with the infectious fevers mentioned.

A Case of Vesicular Eruption Resembling Pompholyx was presented by Dr. Pfahler. The condition consisted of deep-seated vesicular and erythematous lesions limited to the middle finger of the right hand. The patient was 25 years of age, and stated that the condition had existed for several months. The condition was now being treated by exposure to the X-ray.

With the adjournment of this meeting concluded one of the most successful and interesting sessions in the history of this Society. The members were unanimous in expression of their appreciation of the courtesy of the JOURNAL OF CUTANEOUS DISEASES in publishing the notes of the meetings.

SAMUEL HORTON BROWN, Reporter.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

EXANTHEMATA.

By NELSON D. BRAYTON, A. B., M. D., Indianapolis, Ind.

Some General Considerations of the Pathology, Histology, and Cutaneous Manifestations of Smallpox, Experimental Inoculations in Lower Animals. W. T. COUNCILMAN. (*American Medicine*, October 21, 1905, and *The Journal of Medical Research*, January, 1906.)

Historical. From the middle of the last century to the present time there have been three periods in which the disease has been studied with regard to its manifestations in lower animals. In 1873 Weigert and other Germans made their observations; in 1902 Guanieri and the Italians; in 1903 Howard, of Cleveland, Ewing and Park, of New York, and Councilman, Tyzzer, and Brinkerhoff, of Boston, studied the pathological, histological and bacteriological features of smallpox, with regard to experimental inoculation in animals of the monkey tribe. It is a prevalent belief among natives of countries where the monkey is indigenous that these animals acquire the disease. Numerous reports of apparently authentic cases reported by reliable physicians encourage this belief. Acting upon these theories and suggestions, Councilman and his co-workers experimented with monkeys, the genus *macacus cynomologus* being used for control experimentation.

Vaccinia: Variola Inoculata: and Variola Vera: These three diseases have three points in common: the production of a local lesion, which in all of them has the same general type; swelling of the lymph nodes adjacent to the lesion; and the production of an immunity. *Variola vera* and *variola inoculata* differ from *vaccinia* in that a virus capable of air-transmission is produced. In *vaccinia* this does not occur, and in the two latter diseases the local lesion is always followed by an exanthem. *Variola inoculata* differs from *variola vera* in a much milder course of the disease, and in a shorter period of incubation (ten days).

Histolo-pathology and Bacteriology. Experimentation upon the cornea has provided the most satisfactory studies in the histology of the vaccine process. The tissues are extremely simple; no blood-vessels com-

plicate the picture; the epithelial cells are large, few in number, and all changes taking place in them are readily studied. Vaccination is made by passing a lancet-shaped needle obliquely through the tissue, making but slight trauma of the cornea. In twenty-four hours a small opaque spot appears, microscopic study of which after sixteen hours shows the presence of small bodies, round or irregular in shape, within the epithelial cells. They are extremely small, but of constant size—about one micron in diameter. Repeated examinations of numerous cornæ at various intervals of time demonstrate that these bodies increase in size with differentiation of structures in the previously homogeneous body. These bodies break up into small ones, similar to the first forms observed. Repetition occurs in adjacent cells. Within fifty hours the small developing and segmenting bodies can be found in a single microscopic section. Similar bodies are found in the vaccine lesion of the skin, cornea, and mucous membrane of the monkey, as in the skin of man. They are the one anatomic criterion so far discovered determining the specificity of the process; the anatomic structure of the pock has no differentiating value. Similar bodies, having the same development, are found when variola vera virus is used for inoculation experiments. In vaccine lymph these bodies have not as yet been differentiated.

The study of these bodies in the skin is attended with greater difficulty than in the cornæ, owing to the greater complexity of the tissues of the skin. In addition to the bodies already described in vaccinia, and following them, other bodies begin to appear which undergo their development, not in the protoplasm, but in the nuclei of the epithelial cells. The development of the nuclear body often results in the formation of a structure comparable to a sporoblast, in which spore-like bodies from one-third micron to one micron in size are found. These differ in size and structure from the products of segmentation of the vaccinia organism. In the primary lesions in variola, only the bodies in the cytoplasm of the cells are found. In the lower cells both are present, the intra-nuclear forms then occupying the central and oldest part of the pock.

Councilman concludes therefrom that the organism in vaccinia and variola is the same; that in vaccinia it undergoes a definite cycle of development resulting in a structure, the gemmule, arising from simple growth and segmentation; that in variola a further and more complicated growth occurs, in which probably sexual forms appear.

It is only in man and monkeys that conditions are favorable which develop the cycle of variola. Monkeys are susceptible only to variola inoculata, and not variola vera. Attempts to give monkeys or orang-outangs smallpox by exposing them to variolous patients have completely failed.

Variola inoculata is the same in monkeys as in man, save that the incubation is shorter. The constitutional reaction takes place in man on the eighth day, and in the monkey on the sixth to eighth. In the monkey

a well-marked pock develops at the site of inoculation, and reaches its acme on the eighth day. The exanthem begins on the eighth or ninth day. The extent of the exanthem varies greatly; in some animals there may be only one or two typic lesions, while in others over a hundred may occur. In the monkey, as in man, the distribution of the exanthem shows a partiality for certain regions. The face is most commonly involved. Elsewhere, in order of frequency, it is present upon the wrists, scrotum of the male, region of the anus and base of the tail, palms of the hands and soles of the feet; then the inner aspect of the arms and thighs. The eruption avoids the trunk and the outer hairy surface of the limbs.

Attempts made to produce variola vera in the monkey by varying the place of inoculation failed. While in man primary infection is generally believed to occur always through some mucous membrane (generally respiratory), insufflation of the virus into the trachea and lungs failed to produce variola vera. Variola inoculata with immunity and exanthem is produced by this latter method. Variola inoculata without immunity and with exanthem was produced by inoculating either the cornea or mucous membrane of the nose, mouth, or palate. The exanthem and immunity are due to the absorption of products from the primary focus.

The anatomic reason for the peculiarity of these phenomena rests in the retention by the impermeable horny layer of the skin, and thereby long continued absorption of the virus. In the cornea the absence of the horny layer produces an ulcer, and not a vesicle or pustule is produced; consequently the products escape on the surface. In the trachea and lungs the thin layer of the epithelium renders absorption of the products easy, both from a lesion or mucous surface. No inoculation takes place on the buccal mucous membrane.

Again, if a proto-pustule is developed in variola vera, it probably is in the lungs or in the larynx or trachea, because only in these places can the necessary absorption take place. The absence of symptoms would seemingly exclude the larynx and the trachea.

The study of the histology of variola inoculata in the blood of monkeys has also given interesting differences as regards variola vera. In variola one of the most striking anatomic facts is the small part which leucocytes play in the lesions. Before secondary infection occurs, there may be no leucocytes present. The blood count shows a marked diminution in the neutrophile leucocytes, and an examination of the blood-forming organs shows the same diminution in leucocytes, with an increase in the cells belonging to the lymphoid series. In variola inoculata, of the monkey, this striking leucocyte reaction is absent. Leucocytes are abundant in the local lesions, and an active leucocytosis occurs in blood-forming elements. This condition has so far not been studied in variola inoculata of man.

Summary. In conclusion, these investigators admit that the fundamental question of the bacteriology of variola is unanswered. The hypothesis of a sexual parasite is probably the correct one. The primary

focus of the disease generally occurs in the lungs; the specific lesions of the disease occur only in epithelial tissues, and the exanthem is caused only when emboli from the original infecting pustule or proto-pustule on the mucous surface in the lungs have conveyed the specific organisms to the epidermis.

As regards the blood, at what stage it is infectious or how long—that is as yet undetermined.

SYPHILIS OF SKIN AND MUCOUS MEMBRANES.

By WALTER C. KLOTZ, M. D., New York.

Hereditary Syphilis. R. W. TAYLOR. (*N. Y. Med. Jour.*, Feb. 3, 1906.)

Before taking up the subject of hereditary syphilis, the author discusses the etiology of syphilis in general, referring particularly to the various investigations as to the causes of this disease, and reviewing especially the recent literature on *spirocheta pallida*. He is inclined to the view that this organism really plays an important part in the etiology of syphilis.

In bringing up the question of syphilis in three successive generations, he draws attention to the difficulties encountered in obtaining a complete record of such cases, covering usually a long period of time. For that reason many cases reported cannot be accepted, though they have the value of stimulating further interest and research in this direction. The most valuable and conclusive cases were those reported by Hutchinson and Cæsar Boeck.

He reports two cases of his own in which there was absolute proof that syphilis had occurred in three successive generations. The first was one of a woman (the first genitor), infected with syphilis, suffering with severe secondary and tertiary lesions, careless of treatment, who gave birth to a female child three years after infection. This baby when it was born presented classical symptoms of hereditary syphilis. This child (the second genitor) grew up, became strong and healthy, never acquired syphilis, and subsequently gave birth to a weak, atrophic, marasmic girl, who at birth gave no signs of hereditary syphilis (third generation), but who in five years developed true dystrophic symptoms: in the teeth, eyes, ears, and bones, and later evidence of a virulent form of late syphilitic infection (third) in characteristic gummatous tumors and ulcers. The second case was as follows: A healthy woman married a syphilitic man, contracted syphilis, and two years later she gave birth to a male child who soon after birth was characteristically heredo-syphilitic, and later developed typical undoubted evidences of hereditary taint which showed themselves for several years. He never acquired syphilis, and married a healthy girl. Three years after the marriage of this second genitor, his wife gave birth to a thin, weakly girl, in whom at four years many dystrophic symptoms of bones and joints had developed,

which were promptly cured by antisyphilitic treatment. Both these cases apparently furnish a complete chain of evidence of syphilis inherited through three generations.

He presents in detail the histories of two cases of Hutchinson and the one by Cæsar Boeck, on the value and importance of which he lays great stress, and also the cases published in 1904 by Ed. Fournier, the data of which were of great interest. A number of other cases published he would not accept as omitting certain steps of evidence necessary for proof. He further carefully distinguishes between the dystrophic form of hereditary syphilis, which is more common, and the virulent form, which is very rare.

Regarding acquired infection in persons hereditarily syphilitic, he points out the importance of recognizing what is termed by the French school syphilitic heredity, characterized by certain dyscrasiæ, and true hereditary syphilis, in which there is usually established an immunity against fresh infection, and in whom acquired syphilis is rare. But under certain conditions and as a result of thorough antisyphilitic treatment, the hereditary disease becomes extinct, immunity is lost, and syphilis can again be contracted. A case of this kind reported by the author presents the following facts: hereditary syphilis manifested itself in a patient nineteen years old who had in early life received very little treatment. At twenty-six years of age she acquired syphilis again, the disease "developing in a most active form." As examples of the dystrophic form of syphilis or syphilitic heredity, he quotes from the reports of two cases published by Gaucher and Rostaine. In conclusion he refers to a case reported by Kinnicut: the mother had a clear syphilitic history; the child two and one-half years old when taken to the hospital, had had snuffles and sores on legs when five months old. The teeth were normal, and the child walked at eighteen months. There were distinct dystrophic changes in the bones of the skull and phlanges. There were symptoms of pulmonary troubles and ascites. The child died in spite of antisyphilitic treatment. The autopsy showed the lesions to be entirely tuberculous. The author has reported this case to illustrate the danger of diagnosing such conditions as hereditary syphilis, and also as an example of severe dyscrasia of syphilitic heredity complicated by tuberculosis.

Value of Virchow's Smooth Atrophy of the Base of the Tongue in the Diagnosis of Syphilis. N. B. POTTER. (*Bost. Med and Surg. Jour.*, 1906, p. 261.)

The above article contains a very comprehensive review of the literature of the subject, dwelling especially upon the articles of Lewin and Heller, Seifert, Goldzieher, Lassar, and Lesser. From a résumé of the literature it would appear that Virchow had repeatedly stated that atrophy of the follicular glands of the tongue was a very valuable sign in the diagnosis of the late syphilis, and that there was a casual relation between the two. That the oldest pathological specimens of this condi-

tion in the "Institut" is dated 1863. That out of 6583 autopsy records examined by these authors, 3 per cent. showed confirmed syphilis. That smooth atrophy of the tongue was found in 103, or 1.5 per cent. of these cases, and that in these 103, definite evidence was found in 69 per cent. Similar observations have been made by other authors.

The cases which form the basis of this article were selected from the medical wards of the City Hospital, Blackwell's Island, and the State Hospital at Islip. It was found that palpation was the most satisfactory mode of examination. The author found that Lewin's classification was unsatisfactory, and grouped his cases as negative, doubtful, probable, and positive. In summing up his tabulated results, we find that out of 155 cases without a positive history of syphilis the objective findings of the tongue were positive in 17, probable in 35, doubtful in 42, and negative in 61. That of the 112 cases with a positive history the findings were positive in 54, probable in 24, doubtful in 33, and negative in 1.

The author would conclude from these findings that a normal base of tongue would exclude old syphilitic infection. That typical atrophy of the base in an individual below fifty points toward syphilis, and that moderate or slight atrophy is of little value.

Observations Regarding the Elimination of Mercury by the Kidneys

EMIL BURGI. (*Arch. f. Derm. u. Syph.*, LXXIX, 1906, p. 3 and p. 305.)

In view of many recent articles on the treatment of syphilis by intramuscular injections of mercurial salts, the results of the author's experimental work are especially interesting. He has carefully carried out a series of observations as to the amount of mercury excreted in the urine during and after different methods of administration. The amount of mercury in the 24-hour urine was determined daily by the method of Farup; these daily observations continued for a greater period of time.

Thus he found that where daily inunctions of 2 gm. of mercury were given, that minimal quantities of mercury could be detected in the urine on the first or second day; that after this the amount of mercury excreted in the urine gradually increased until the daily average amount reached about 2 mill. gm. At the same time it was noted that the daily amount of urine also showed a distinct increase, this diuretic action becoming less marked, however, after a period of about four weeks. Similar results were obtained from the use of Welanders' method of having the patient wear a sac containing mercury in contact with his skin. It is interesting to note also that appreciable quantities of mercury were found in the urine of individuals who were not receiving mercury in any form, but who were occupying the same room with a patient receiving inunctions. In the case of mercury administered by mouth (calomel and yellow iodide), mercury appeared in the urine very rapidly, the daily amount excreted increased markedly till it was about

3 to 4 mill. gm., but toward the end of the period showed considerable fluctuation. The diuretic action was also more marked than with inunctions. In the case of intramuscular and intravenous injections of soluble salts of mercury (bichloride principally), mercury appeared in the urine more rapidly than by either of the first two methods. The increase in the daily average was very sudden in case of intravenous injections, more gradual in intramuscular injections. The daily amount excreted would not exceed 3 mill. gm. The proportion of the amount excreted to the amount ingested was about 25 per cent. in the case of intramuscular and about 50 per cent. in cases of intravenous injections. Injections of the insoluble salts of mercury (the salicylate) showed the greatest daily amount excreted on the first day. This reached as high as 5 to 7 mill. gm. After the first day the daily quantity would gradually fall until another injection was given. The percentage excreted was greater than by any of the other methods. In regard to the length of time that mercury remains in the body after cessation of treatment and can still be detected in the urine, various views have been expressed. The author does not believe, however, that this period is longer than six months. Owing to the unwillingness of patients to remain in the hospital after having received their course of treatment, he was unable to carry out his experiments to the same degree of completeness, or for satisfactorily long periods. He was able to show, however, after a course of injections of mercury salicylate beginning the day of the last injection, that the amount of mercury excreted in the urine would gradually diminish from 6.50 mill. gm. on the first day, until at the 36th day the quantities became minimal and characterized by very irregular fluctuations, showing that observations made at intervals of several days or a week are of little value. Where observations were begun 30 days after the last of a series of ten injections of mercury salicylate of 0.1 gm. each, traces of mercury up to 0.6 mill. gm. continued to be found in the urine for fifty days during which the observations were carried out. There was not, however, any marked daily decrease, and there were distinct and irregular fluctuations. The results of these painstaking experiments have been compared with those reported by other authors. On the whole, the figures coincide fairly well. In order to appreciate the extensiveness of the work carried out, it is necessary to refer the reader to the original article, the many valuable details of which it is impossible to adequately convey in a short review, and which fully sustain the author's conclusions. He admits that these experiments only show the amount of mercury that is excreted by the kidneys, but for practical purposes this furnishes a safe index of the amount of mercury in the blood. Finally the author wishes to point out that a greater quantity of mercury is absorbed by the intestines than had been generally supposed, and that this is an important fact to bear in mind, in order to avoid mercurial intoxication, where mercury is administered for other than antisyphilitic purposes, as a diuretic, intestinal antiseptic, etc.

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INFECTIOUS DERMATITIS GANGRÆNOSA

GROVER W. WENDE, M. D., and CHARLES A. BENTZ, M. D.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

SUMMARY: Infectious gangrene, first shown by a bullous eruption, changing to necrosis, variable in distribution and extent, apparently originating through auto-inoculation from a chronic leg ulcer. Absence of constitutional symptoms during development of the skin lesions; secondary general infection and death from septicæmia. In the bullæ and gangrenous lesions of the skin during life, as well as in the internal organs at the autopsy, were found streptococci, staphylococci, diplococci and bacilli.

Case—The privilege of reporting the following case is due to the courtesy of Dr. Edgar McGuire. The patient was a farmer, seventy years old, who had moved from his home in the country to Olean, N. Y., and who for a period of about six months had refrained from active work.

Family History—Father died of old age at ninety-two; mother died of cancer of the breast at the age of eighty-eight; brother died of gangrene following gunshot wound. One brother and sister living, in good health.

Previous History—Patient had typhoid fever at the age of fifty. He denied venereal disease. Had usually been well and strong, drank moderately and used no tobacco. Had an ulcer on the lower left leg about twelve years ago, which healed at the end of a year. About two years ago, another ulcer formed on the same leg, encircling it, and extending from the ankle to the knee. This lasted about six months. No ulceration appeared on other parts of the body at either of these times. About six months previous to the skin manifestations, another ulceration began in the scar of the larger one, which continued to the time of his death, being, however, only about one-half the previous size. About the first of December, 1905, an ulcer formed on

the right leg, which did not cause any special discomfort and seemed to be in a fair way to heal.

Present Illness—About five weeks previous to his coming under our observation, a number of "water blisters" appeared upon the back of the head, remaining stationary for a few days, when they were accidentally ruptured, causing severe pain. This condition was soon succeeded by gangrenous changes, following which, lesions consisting of a few bullæ spread to the upper part of the back, and, finally, to the anterior surface of the body, first attacking the legs. It appeared that, at the onset, there were no special constitutional disturbances. No other particular symptom was noted. There was no complaint of any special trouble which might have induced the gangrenous affection, although, after the lapse of a fortnight, the patient stated that he did not feel quite well, being, at the same time, able to get around as usual.

Examination—January 28, 1906, Buffalo General Hospital. No marked constitutional symptoms were present, but patient appeared depressed. Mouth showed none of the lesions that appeared on the skin. Viscera presented no evidence of disease. Took food with relish and slept fairly well. Complained bitterly of pain when it became necessary to move him, especially during the manipulation of the ulcers.

Scalp, Neck, Ears and Face—The skin of the scalp was uniformly involved, in portions showing a yellowish-red crust, beneath which was a swollen, granular, œdematous surface. Where the ulceration did not immediately exist, bullæ were occasionally manifest. The ulcers varied in size from that of a ten-cent piece to that of a dollar. Portions of the hair were matted, and the extent of the ulceration of the scalp could not be ascertained because the ulcers were superficial and extremely painful when touched. The most extreme ulceration was located behind the ears; while it was superficial, it seemed to penetrate more deeply than that existing upon the hairy portion of the scalp; it was also covered with a yellowish exudation. On the nape of the neck were more distinct ulcerations; the one in the center was very deep, about two inches in diameter, and covered with a dirty, clinging mass. There were four unruptured bullæ. Extending over the back were ten ulcers, varying in size from that of a ten-cent piece to that of a quarter of a dollar. Upon the face were six small lesions, some representing bullæ and a few beginning to ulcerate.

Arms—From the shoulders to the finger-tips, the surface was sparsely covered with ulcers, with the exception of a single group consisting of ten ulcers which have coalesced. In some places they were isolated, and were more or less circular, with well-defined edges. There was some evidence of infiltration, the surrounding surface of

the oldest ulcers being elevated. The color would change from a bright to a bluish-red and bled upon the slightest irritation to such an extent that it was necessary to apply compression to prevent undue loss of blood. The more recent ones showed less redness, assuming a grayish aspect; and the ones last formed exhibited a mass of debris at the center. Many unruptured bullæ were noticed, two on the palms, the contents of all presenting a hæmorrhagic appearance. The surface of some of these bullæ seemed shriveled; the contents of others, upon the removal of the covering, resembled a sponge. There were some lesions the edges of which would break down, thus seeming to represent the beginning of the ulceration. The same fact was noted in connection with other lesions on different parts of the body, they would go on developing at the periphery and gradually extend around and beneath the remaining debris of the bullæ, which formed a slough, soon followed by separation. This being removed, there remained roundish, conical ulcers, the depth of which depended upon the size—some attaining an inch. The surface was bright red.

Trunk—The largest and deepest of the ulcerations appeared upon the front of the body and were very numerous. There were two groups, one on the upper part of the chest, the other on the lower part of the abdomen. These were discrete and, in many instances, had coalesced. There were no inceptive lesions present. The ulcers were deeper upon the trunk than elsewhere, destroying the entire depth of the skin. The infiltration was pronounced and appeared to be raised at certain locations as much as a quarter of an inch.

Legs—The ulcers were quite plentiful on the thighs and less so upon the legs; they were discrete, except in one or two places where they had coalesced, although at all points the tendency to deep involvement was evident. The ulcerations presented the same characteristic appearance, brilliant or bluish-red, intermingled with bullæ which had a tendency to break down. There were two ulcers which presented a different appearance, and probably represented another condition, lacking the bright red so characteristic of all the others, having an irregular edge, covered with debris and showing considerable surrounding dermatitis, with an attendant discoloration. There was also in evidence a parchment-like scar, free from pigment, beginning in close proximity to the upper border of the discoloration, and extending to a point about three inches below the knee. These independent ulcers, taken in connection with the scar, suggest syphilitic ulceration, of which, however, there was no direct evidence.

Urine—The urine, twice examined, was dark and cloudy, specific gravity 1020, acid in reaction, no sugar, faint traces of albumen, a few leucocytes and hyaline and granular casts.

February 2 (third day in hospital). Temperature 99 F. pulse

90. The ulcers presented a clean appearance, probably due to the application of local dressing. Patient slept well, but would arouse when spoken to.

February 4: Temperature 101 F., pulse 98. Condition showed evidence of sepsis; no special change in the ulcers other than a slight peripheral extension; no variation in color and the progress was slow. There were very few new lesions.

February 5: Temperature 100 F., pulse 96. The ulcerations on the abdomen and thighs were now still further coalesced, in other portions remaining discrete. Patient continued to take nourishment and was feeling strong, but could not rise on account of the intense pain produced upon moving.

February 6: Temperature 100 F., pulse 90. General condition about the same. The ulcers became more and more painful, probably due to change of ointment and dressing.

February 7: Temperature 101.10 F., pulse 112. General condition somewhat worse, although not sufficient to require stimulation. Beginning of diarrhœa.

February 8 (eleventh day in hospital). Temperature 102.2 F., pulse 130, full; tongue dry and coated. The intensity of the toxic symptoms increased rapidly. Patient died at 11:30 A. M.

AUTOPSY.

Twenty-four hours after death, was made by Dr. Nelson G. Russell, assisted by Dr. Charles A. Bentz.

Head—Dura somewhat adherent; considerable clear fluid escaped. Pia and arachnoid bulging; considerable amount of fluid beneath. Vessels of brain somewhat congested. Gray and white matter normal, cerebellum same.

Nutrition—Fair amount of fat.

Rigor Mortis—Firm.

Skin Lividity—Moderate. Ulcerations the same as in life.

Height of Diaphragm—Fourth rib right side; fifth rib left side.

Lungs—Left; wt. 20 oz.; crepitates; considerably congested posteriorly; cut surface exudes blood and froth. Right; wt. 22 oz.; congestion in dependent part.

Heart—Weight 18 oz. Mitral valve shows vegetations and thickening; tricuspid, some thickening; pulmonary, the same; cavities of right side distended and deeply stained; blood distinctly clotted. Left side, thin, brownish gray. Endocardium deeply stained beneath which gas bubbles were noticed.

Aorta—Quite rough and thickened.

Spleen—11 oz.; very soft; capsule thick; substance almost fluid.

Kidney—Left, 4 oz.; small and surface uneven, with small

cysts; cortex rather narrow; blood-vessels distinct. Right, $5\frac{1}{2}$ oz.; similar to left.

Liver—56 oz. Light in color, soft and friable; on section, shows fat globules.

Pancreas—Area of fat necrosis about the size of a bean and light in color; the rest quite normal.

Testicles—Normal.

Thyroid—Normal.

Stomach—Slight congestion below esophagus.

Large Intestine—Slight congestion under sigmoid colon. Mesenteric and thoracic lymph-nodes enlarged and congested.

Smears—Made from bone marrow, spleen and lesions on leg.

Cultures—Taken from liver, brain, lesions of leg, spleen and heart-blood.

Tumors—Representing various phases of the skin lesions removed.

ANATOMICAL DIAGNOSIS.

Multiple gangrenous ulcerations of skin, about 135 in number; endocarditis; myocarditis; fatty liver; chronic interstitial nephritis; cerebral œdema; arteriosclerosis.

MICROSCOPICAL EXAMINATION.

Skin—Pieces of tissue, including smallest sized to well-formed bullæ, removed two days before death, as well as at autopsy.

A lesion of pin-head size—the smallest obtainable—showed a circumscribed elevation of the unbroken horny layer. The rete cells, in portions, were dropsical; others took a diffuse eosin stain indicative of degeneration and also showed fragmentation of nuclei. The lesion was made up of the remains of epithelial cells, and exudate, in which was found fibrin, a great number of polynuclear leucocytes, and, on special staining, a large number of cocci. The microorganisms had not deeply penetrated. There were a large number of leucocytes in other layers of the epidermis. The upper layer of the corium showed evidence of an acute inflammatory condition, dilated blood-vessels and numerous migrated lymphocytes. A cross section of nerve did not reveal any evidence of infiltration. A more advanced lesion presented an entirely different appearance. The pustule seemed to have broken through the stratum mucosum, turning the ends beneath into an involvement of the upper layer of the corium, making it appear as though the lesion was surrounded by rete on two sides, carrying with it a portion to the bottom. The contents appeared almost solid, with cellular elements, which consisted of mono- and polynuclear leucocytes, epithelial cells and a distinct network of fibrin.

The inflammatory condition began to spread into the deeper portions and to extend along the blood-vessels, sweat glands and hair follicles. The cells of the infiltration were almost lymphocytes; there were also numerous plasma cells; no giant cells were present. Careful examination of hair follicles was made, and, in one instance, there was found, apart from an active lesion, a marked infiltration around the follicles, with circumscribed elevation of the epidermis and œdema of the cells, with bacteria.

The oldest lesions were removed during life and at the time of the autopsy. There was complete destruction of the epidermis, and the ulcers was covered with degenerated epithelium, coagulated fibrin and debris. In the remaining portion of the corium there was a marked enlargement of blood-vessels filled with red corpuscles, and throughout occupied by numerous hæmorrhages. There appeared a ratio between the size of the ulceration and the amount of hæmorrhage present, the latter first showing itself in the upper layer of the corium. It appeared as if the intensity of the inflammatory reaction in the blood-vessels caused the hæmorrhages in the meshes of the skin. The cells of inflammation diminished in intensity with the depth, while, in the upper part, there was complete disappearance of nuclei and the tissue lost its outline and had a more or less homogeneous appearance. In the deeper parts the nuclei were partially preserved and the structure was recognizable.

In various layers surrounding the ulceration and throughout the infiltration were found clumps of cocci, among them short-chain streptococci, which were also especially noticeable in the subcutaneous tissue. In close relation to the large ulcers were found many inceptive lesions.

INTERNAL ORGANS.

Lungs—œdema, Gram's method showed short, square-ended bacilli and diplococci. Bacilli and cocci were found inside the blood-vessels.

Lymph Node—Showed an intense hyaline degeneration.

Heart—Interstitial myocarditis; fatty infiltration; fragmentation of muscles, probably mechanical; bacilli and diplococci.

Aorta—Sclerosis.

Kidney—Chronic interstitial nephritis, connective tissue increased about the blood vessels and tubules. Renal epithelium shows cloudy swelling. Many cysts present; evidence of hæmorrhages.

Suprarenal—Normal.

Pancreas—Fatty infiltration.

Liver—Slight cirrhosis and fatty infiltration.

Brain—Dilatation and thickening of blood-vessels of pia, with round-cell infiltration. The upper layer of cerebrum œdematous with dilatation of perivascular and pericellular lymph-spaces.

Spinal Cord—Unusual number of hyaline bodies; blood vessels considerably congested. In places along the nerves, an infiltration of round cells, lymphocytes, and leucocytes. Pal Weigert's stain showed no degeneration of nerve tracts.

BACTERIOLOGICAL REPORT.

Blood—Aspirated from the heart and inoculated into glucose-litmus-agar, after forty-eight hours, showed gas bubbles in media with production of acid. The growth consisted of long, thick, bacilli with square ends, resembling the bacillus *ærogenes capsulatus*, also diplococci. Growth obtained from liver and spleen showed same findings.

Bullæ—Two days before death, smears from bullæ showed a few streptococci. Smears made at post mortem, from a bulla of the skin, previously seared by heat, showed by Gram positive diplococci and short-chain streptococci, and large capsulated bacilli, also polynuclear leucocytes, fibrin erythrocytes and epithelial cells. The heart blood smears Gram positive, showed large bacilli with square ends and occasionally cocci. The blood showed leucocytosis. Further study of the cultures by the planting of the microorganism on the various culture media, show this organism proved to be the staphylococcus *pyogenes aureus*, streptococcus *pyogenes* and the bacillus *ærogenes capsulatus*.

Spleen—The smear made from spleen pulp stained by Wright's method, showed short, thick, square-end bacilli, sometimes in pairs or chains. By Gram's positive, the organism stained regularly. Diplococci were found in small numbers.

Brain—Smears showed diplococci.

Bone Marrow—Smears stained by Gram's, Wright's and Methylene blue, showed short, thick, square-end bacilli and diplococci; other factors normal.

Inoculations—Three male guinea pigs were inoculated in the peritoneal cavity, with fluid taken from the large bloody bullæ, mixed with equal parts of sterile salt solution; the following quantities were injected; 3, 4, 4½ c.c. In forty-eight hours the pig receiving

the largest amount died. The autopsy showed severe reaction of the peritoneal cavity, the intestines being matted together and covered with fibrin. Microscopical examination of the exudate showed stercotocci and diplococci, also bacilli that did not stain by Gram's. Cultures showed the organisms to be bacilli coli communis. The other pigs died in seventy-two hours from an intense fibrous hæmorrhagic peritonitis. Testicles in three pigs, normal.

Conclusions—Dermatitis gangrænosa may be due to external infections. It is often accompanied by sickness, diarrhœa and fever, and sometimes follows measles, scarlet fever or other exanthemata, particularly in children weakened by preceding disease. Precisely similar cases occur sometimes in adults, complicating other diseases. However, as a rule, adult cases are not quite identical, either in their etiology or course, although in their general character, the individual lesions resemble the infantile form; with adults the result is rarely fatal.

The specific cause of gangrene in infection has always led to diversity of opinion. Regarding the essential nature of the process, it can only be connected with the character of the microorganism which determines it. It is possible that the same organism may provoke different lesions and the same lesions may come from different organisms. This may be an explanation of the many different organisms connected with gangrene.

If we take into consideration the history of the case, and remember that the patient had chronic ulceration of the leg, which does not seem to have been connected with his last illness, it becomes plain that such a condition, as in this case, not receiving proper attention, forms favorable soil for secondary contamination. Bearing in mind this possibility, a piece of the leg ulcer was removed for microscopic examination, and streptococci and diplococci were found. The course of the last illness demonstrated in a peculiar way that the gangrene developed by auto-inoculation, appearing first upon the head and neck, then upon the legs and arms, and, later, upon the abdomen and chest. All the lesions were upon the anterior surface, with the exception of a few on the upper part of the back, places which are most readily reached by the hands.

The lesions began as superficial vesico-pustules and their contents were opaque until they attained the size of a split-pea, when they invariably became hæmorrhagic, soon followed by a gangrenous change at the edge, with shriveling of the epidermis. Nevertheless, the outline remained and the entire lesion was finally removed by dis-

charge. The ulcers thus formed presented a punched-out aspect, with a bleeding base, showing a thickening of the border which had a waxy appearance.

If we take into consideration the development of the lesions through their various stages, and their distribution, we are justified in ascribing their origin to an infection.

The patient had no constitutional disturbances, at first; no fever, and retained his appetite. It was not until the ulceration became quite general and the ulcers deep that fever developed. Just prior to his coming to the General Hospital, and during his first two days there, his case was not accompanied by any general weakness.

Considering the inceptive bullæ and the superficial location of the bacteria, one could assume that the disease was a local one, resembling, in fact, some of the cutaneous diseases due to the various forms of pus organisms. Although the gangrenous manifestations do not correspond to any infection classified as a disease, it is fairly well understood that intensity of a reaction may be shown by the hæmorrhages in the bullæ. This is further emphasized by the penetration into the corium, as shown by the microscope, and the rapid development of gangrene, proved by the histological examination of several ulcers.

The extension of the bacteria is essentially the same in all of the sections of the ulcers, and the findings connected with the internal organs justify the theory that there was a secondary general invasion of the body by bacteria after the ulcer had reached a certain depth, which was indicated by constitutional symptoms. Just what relation the bacillus *ærogenes capsulatus* found in the internal organs bore to the case it is difficult to say, but it was probably a terminal infection. Death resulted from septicæmia.

The patient's age, and the general condition of the viscera, as shown at the post mortem, may have had a decided influence in furnishing a favorable soil for the growth of the many and various microorganisms found, and their wide distribution.

Careful examination of pertinent literature revealed no case exactly similar, with the following exception: By Drs. Fordyce and Mewborn: "A Case of Undetermined Infection of the Skin, Possibly Glanders." (*JOURNAL OF CUTANEOUS DISEASES*, December, 1903, p. 549). One of the most noteworthy features was the striking resemblance as regards the source of the infection. The case was a secondary infection from an injury, following a scratch of the finger; ours the contamination of an old ulcer. The distribution of

the lesions, as though by auto-inoculation, and the character and course of the individual lesions were manifested in both cases by pustules, hæmorrhagic bullæ and ulcers. We were also impressed by the close similarity in constitutional symptoms, particularly by the fact that in the pulse and temperature did not indicate the seriousness of the condition. The duration was about the same. Besides the close clinical resemblance the bacteriological and histological examination showed many features in common. The cellular infiltration in both cases was very much the same. In their bacteriological examination, smears from bullæ showed streptococci, staphylococci and irregularly staining bacilli; in our case streptococci, diplococci and large bacilli. In tissue examination, their case revealed myriads of cocci varying in size, single or in groups, with no tendency to chain formation; in our case, distinct chains could be seen.

Through the inoculation of guinea pigs, in their case, death did not ensue, but there was an inflammatory reaction at the site of inoculation and an examination of smears showed staphylococci. In our case there was intense inflammatory reaction and death, according to the quantity injected. This was not mentioned in their paper, but differences in virulence of the microorganisms may explain the slight variation in the two cases. In both cases, general toxæmia existed. The effects produced in their case corresponded to the rapid action of a virulent toxin from an acute inflammatory disturbance of the skin, probably caused by various organisms found in the cutaneous lesions; in our case, there was not only the demonstration of bacteria in the skin, but they were also found circulating in the blood, causing septicæmia. The possibility of their case being glanders was strongly entertained, but the finding was negative. In our case, also, glanders was excluded.

DISCUSSION.

Dr. THOMAS C. GILCHRIST referred to the finding of the gas bacillus, which was first discovered by Professor Welch, as an extremely interesting feature of the case reported by Dr. Wende. It had been found in the internal organs, but never, to the speaker's knowledge, in the skin lesions.

Dr. WENDE said he did not believe that the gas bacillus had much to do with the death of the patient, although the bacilli were found in the skin lesions, and internal organs; and its association in this case presented no variation from many other conditions. Still, the speaker said, he believed that the gas bacillus was present previous to the patient's death.

PLATE XXXVI.—To Illustrate Dr. G. W. Wende's Article.



THE REPORT OF A CASE OF PARAKERATOSIS VARIEGATA.

By HENRY G. ANTHONY, M. D.

Professor of Skin and Venereal Diseases, Chicago Polyclinic.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

IT is not established that dermatitis psoriasiformis nodularis, parakeratosis variegata, and érythrodermie pityriasique en plaques disséminées are different manifestations of one and the same disease, as some writers believe, and until their identity is definitively determined, I consider it advisable to regard these eruptions as separate and distinct disorders.

The points which they present in common are: Their superficial character; the fact that they appear rather suddenly in young, healthy individuals; that there are no succeeding crop of eruptions, but a steady, imperceptible increase of lesions; that there is no itching, and that the disease is unaffected by treatment.

DERMATITIS PSORIASIFORMIS NODULARIS.

From a study of the literature, I have concluded that dermatitis psoriasiformis nodularis is best entitled to be regarded as a clinical entity.

The appearance which the eruption presents was originally described by Jadassohn as follows: The eruption is scattered and only in a few places arranged in irregular groups.

The papules are pin-head to small-pea sized. Round in form or oval, in conformity to the lines of cleavage of the skin. The color is intense red, paler and paler in the large ones, until the color finally attained is that of the normal skin.

The small ones are pointed, the larger are plateau-like and in some of them a central depression is present. They are all of a firm consistancy and there are no scales visible. Many are in association with the follicles of the skin, while others are not. When scratched, any one of the papules, even the smallest, shows a rather thick, firm,

NOTE: This paper was accompanied by the presentation of the patient. (H. G. A.)

well united scale which projects a little beyond the border of the papule. On removing the scale, there is a trace of bleeding, but not the bleeding points of psoriasis. The denuded surface is diffuse red but not as red as in psoriasis. The scale is thicker in the center than on the periphery and when removed, there remains no trace of infiltration.

Jadassohn carefully considered the possibility of this eruption being a form of lichen planus; he recognized that a few such papules may be observed in lichen planus scattered here and there among typical lichen planus papules, and he stated that they were present in Chotzen's case, but observing two cases with a special clinical history and presenting exclusively this peculiar papular eruption, he believed that the eruption must be something special.

Histologically, the sections differed from lichen planus in the fact that the inflammatory exudate was less in degree and was not circumscribed.

Subsequently, cases were reported by Pinkus, Juliusberg and Himmel, and the special character of the eruption was recognized by Kaposi, Herxheimer, Kreibich and Spiegler, all of whom had seen cases. The report of these cases have added almost nothing to the original description of the disease.

Spandler described a case observed in Kaposi's clinic which was of an extremely acute type; it resembles pityriasis rosea of Gibert.

In Csillig's case the eruption was in part like that of parakeratosis variegata and presented the same retiform arrangement. He thinks there is no doubt that these eruptions are different manifestations of one disorder.

Pick's case, which was at first diagnosed dermatitis psoriasiformis nodularis, on further clinical and microscopical study proved to be a tuberculide. Juliusberg says that the pathology of this dermatosis is the same as that of parakeratosis variegata.

PARAKERATOSIS VARIEGATA.

Unna caused a great deal of confusion by trying to revive and at the same time expand the obsolete classification of "The Parakeratoses." In the original Auspitz Classification "The Parakeratoses," were the diseases of the corneous layer of the epidermis characterized by qualitative anomaly of development, while in Unna's classification, "The Parakeratoses" were diffuse or circumscribed epidermal affections associated with hyperkeratosis (that is, firmly

united epidermal cells), with epithelium growth, with an abnormal powdery scaliness of the epidermis and with anidrosis. This definition, which is partly histological and partly clinical, has never been generally accepted by the profession. The objection to it is that there is no necessity for any such classification as is here proposed. It is better to employ the word parakeratosis simply as a pathological term to indicate an anomaly of keratinization secondary to various primary changes in the corium and rete Malpighii.

At the meeting of the British Medical Association in 1898, Jamieson showed three cases which were accepted by Unna, who was present at the meeting, as cases of parakeratosis variegata. In the discussion, Jamieson and McCall Anderson classified them as anomalous cases of lichen planus, while Morris and Crocker suggested the possibility of their being examples of a premycotic condition. The tumors of mycosis fungoides subsequently appeared in two of these cases.

Hudelo and Gastou presented a probable case of Parakeratosis Variegata before the French Dermatological Society in 1904. In the discussion, Hallopeau diagnosed the case as lichen planus. Brocq accepted it as a case of parakeratosis variegata. Darier said that an examination of the sections presented with the case, suggested mycosis fungoides, but careful study would be necessary to positively affirm the correctness of his diagnosis.

Brocq entering into the discussion for a second time said that it was quite possible that Darier's diagnosis was correct, because of the fact that there were cases on record which, originally diagnosed as parakeratosis variegata, had subsequently proved to be cases of mycosis fungoides. Furthermore, he stated that he had observed the original Unna, Santi and Pollitzer case ulteriorly for a long period of time and had seen several of the plaques become thickened.

These observations do not lead to the conclusion that all cases of parakeratosis variegata are cases of early mycosis fungoides, but rather that the differential diagnosis of these conditions is difficult and will require further study.

Brocq does not state what conclusion is to be drawn from the observation that thickening occurred in some of the plaques in Unna's original case at a subsequent time.

There are two opinions regarding parakeratosis variegata at the present time, one side contending that it is a clinical entity, and the other side that it is a superficial form of lichen planus.

ERYTHRODERMIE PITYRIASIQUE EN PLAQUES DISSEMINÉES.

Brocq thought that the cases which he reported under this descriptive title, were closely allied to parakeratosis variegata. White did not agree with this opinion because the eruption is not papular. Juliusberg agreed with White, and in a later article on the subject, Brocq said that having observed more cases, he had concluded that this eruption was a seborrhœic manifestation. There was some indication of seborrhœa of the face in White's first case.

Stelwagon says that in a case which he observed: (a woman aged thirty-five, in whom the disease had lasted several years) the eruption seemed in its general aspect a medley or combination of the appearances of a mild seborrhœic eczema and a disappearing lichen planus, the whole having a variegated or marbled aspect.

From this literature, there is every evidence favoring the view that érythrodermie pityriasiques en plaques disséminées belongs to the group of cases we have under consideration.

LICHEN VARIEGATUS.

Believing that dermatitis psoriasiformis nodularis, parakeratosis variegata, and érythrodermie pityriasique en plaques disséminées were different manifestations of one disease, Crocker designated them by the name lichen variegatus because of their resemblance to lichen planus, and later he added xantho-erythrodermia to the list.

Xantho-erythrodermia is, in my opinion, an advanced stage of Schamberg's disease, and it does not belong to this group. The streaked arrangement of the eruption which Crocker emphasises as an important symptom, I have observed in one case of Schamberg's disease.

PARAPSORIASIS.

Brocq applied this term as a generic name to the entire group which he subdivided into three forms: Parapsoriasis en gouttes, to designate dermatitis psoriasiformis nodularis; Parapsoriasis lichenoides to designate parakeratosis variegata, and parapsoriasis en plaques to designate érythrodermie pityriasique en plaques disséminées. There is no special advantage in this method of classification. As a generic name, this group of eruptions might provisionally be designated as the Superficial Erythrodermias.

HISTORY OF A CASE.

The case which I have observed belonging to the superficial erythrodermia group, gives the following history:

The patient is a man, twenty-three years old, a laborer by occupation. His father, aged seventy, is living and healthy; his mother died when forty-eight years old, of fatty degeneration of the heart. He has three brothers; they are living and healthy; of his five sisters, one died of asthma, one of some unknown disease and three are living and healthy.

The patient was born in Australia on a cattle ranch; when he was eleven years old, he went to work in a gold mine in Northern Australia. Five years ago while working in this gold mine, he suddenly broke out with a universal eruption which affected many of the miners and was called "prickly heat."

This eruption was caused by excessive perspiration as the heat in the mine was intense. In all cases which he observed, the eruption disappeared quickly, leaving no trace, but in his case, on disappearing as it did in a few days, there remained the eruption which is now present. The patient cannot see that the eruption has undergone any change whatsoever in the five years that it has been present.

He is a strong, healthy appearing man; he has never had a severe illness; he denies ever having had syphilis or other venereal disease. The internal organs are normal, there are no enlarged lymphatic glands, and he is not affected with seborrhœa.

The eruption present does not affect the mucous membrane of the mouth, the integument of the scalp, head, neck, forearms or hands, and it does not present a retiform arrangement. It is present on the trunk, arms, and thighs. The essential features of the eruption are a combination of very slight, superficial erythema with a varying degree of pigmentation, presenting the appearance of disappearing plaques of lichen planus and forming three kinds of lesions.

1. Light brown colored plaques in which there is erythema with but little pigmentation.
2. Chestnut brown colored plaques in which there is erythema with a good deal of pigmentation.
3. Bluish colored plaques which are exclusively caused by pigmentation.

On the back—We note the accidental presence of numerous pigmentary moles sprinkled over the scapular region. The eruption is distributed irregularly over the entire back in the form of superficial plaques which well defined, of light brown color, they partially disappear on pressure. Scattered between these plaques are occasional

lichen-like papules; they are superficial, flat, and a few of them present a central depression; they are not scaly even when scratched.

On the Anterior Surface of the Trunk—The plaques are larger, of oval form, defined outline, varying in size from that of a silver dollars up to palm-of-hand size. The effected areas show no infiltration; the skin may be drawn into a fold just as readily as normal skin. These plaques are of a light brown color; they are eight to ten in number and the surfaces of them are scaly; the scaliness can be seen, but not felt, as the hand is passed over a plaque. It is of fine furfuraceous character.

Below, a little to the right of the left nipple, is a light yellow plaque made up of lichen-like papules. One large plaque shows central retrogression. The plaques are distributed irregularly.

On the Arms—On the inner side of the right arm are two palm-of-hand size plaques, one of which presents a scaliness of such a degree that it can be felt as the hand is passed over it. The other is exclusively pigmentation, presenting an inner zone of bluish pigmentation, and an outer zone of yellowish color; this lesion might readily be mistaken for an ecchymosis. On the left arm the lesions are of light brown color and of the same general characteristics.

On the Thighs and Gluteal Region—The plaques in these locations are darker than on other parts of the body. They are of chestnut brown color, defined in outline, dollar to palm-of-hand size, of fine scaly surface and they do not disappear on pressure.

Some plaques exhibit an atrophic center, which at first view, seems to be an atrophic scar formation, but on close inspection, this appearance is obviously caused by absorption of pigment rather than by cutaneous atrophy.

On exposing the surface of the body to the atmosphere, an erythema marmorata spreads over the surface of the thighs, but does not affect other regions of the body.

In the popliteal spaces are several quarter-of-dollar sized plaques which show Wickham's striæ. There are two or three small plaques on the legs and one on the inner side of the right foot.

The Histo-Pathology of the Case—Tissue was excised from plaques on the anterior surface of the trunk and studied microscopically.

The Corium—The vessels of the corium are dilated and surrounded by an infiltration of small cells, mostly polynuclear leucocytes. The fibrous bundles of the corium surrounding these vessels exhibit no change. In a few instances the exudate enables us to follow vessels into the papillæ.

In almost the entire length of the specimen, the papillary layer

has entirely disappeared and the demarkation of the corium from the epidermis is a straight line, but in places it is preserved.

The Epidermis—The rete Malpighii is thinner than normal. The stratum granulosum can be seen in some places; the stratum lucidum is present; the stratum corneum exhibits imperfect keratinization and shows a tendency to scaliness, only occasionally can nuclei of cells be seen.

THE DIAGNOSIS.

General practitioners who have seen this case, have diagnosed leprosy, syphilis and psoriasis, none of which come into consideration.

Dermatologists who have examined the patient agree that the case belongs to the group of the superficial erythrodermias, but there has been no uniformity of opinion as to which one of the group the case represents.

The reasons for excluding érythrodermie pityriasique en plaques disséminées are: the papular character of the eruption in many of the plaques; the marked degree of pigmentation present; the presence of Wickham's striæ in some of the plaques and the absence of seborrhœa.

That it is a case of parakeratosis variegata, there can be no doubt: the differential diagnosis is between mycosis fungoides and parakeratosis variegata.

There is nothing in the histopathology suggestive of mycosis fungoides and clinically, the eruption differs in essential features from the cases which have heretofore been mistaken for parakeratosis variegata, hence, we feel that mycosis fungoides may safely be excluded.

There are two kinds of Wickham's striæ, those which radiate from the center of a plaque to the periphery like the spokes of a wheel, and those which divide the plaque into little squares; it is this latter form which is present in this case.

Meneau has reported a case of parakeratosis variegata quite similar to this one.

This affection may simulate lichen planus almost as closely as varicella simulates variola, but long observation and a study of the histology of the case which I have observed, convinces me that it is an independent affection, a clinical entity having no relationship to lichen planus.

Parakeratosis variegata differs from lichen planus in its clinical history; the absence of itching, its resistance to treatment and in the

objective symptoms; in the superficial character of the papule which is not neoplastic like the lichen planus papule.

The pigmentation is yellow, chestnut brown or blue, while that of lichen planus is violet or brown in color; there is a greater variation in the color of the plaques than in lichen planus. The dark color of the plaques of the thighs has been observed in a sufficient number of cases to make it an important symptom. Furthermore, pigmentation is an essential feature of the disease and not a lesion relic as is the pigmentation of lichen planus; the pathology of this affection is entirely different from that of lichen planus.

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DISCUSSION.

Dr. CHARLES J. WHITE called attention to the similarity of the pathological appearance in this case to those observed in érythrodermie pityriasique.

Dr. J. NEVINS HYDE who had already had the opportunity of seeing Dr. Anthony's patient, said the case reminded him of one that he had reported at the Chicago meeting of the Association some years ago. The patient had been under the observation of Dr. Frank H. Montgomery and himself for about ten years.

In 1900, while in Paris, Dr. Hyde said he visited Prof. Fournier's ward, where he saw a patient who was supposed to be suffering from leprosy, although there was considerable diversity of opinion among those present as to the true diagnosis. Finally, Prof. Unna was asked to examine him, and he pronounced it a case of parakeratosis variegata. That case, like the one shown by Dr. Anthony, showed marked resemblance to the one that was still under the speaker's observation in Chicago.

Dr. JAMES C. WHITE said that while there was some similarity between the lesions in the case shown by Dr. Anthony and those reported by

himself, the older lesions were characterized by entirely different features. In his own case, the lesions were not papular. The involved areas, while more extensive, were not pigmented nor sharply defined, and in none of them, even after years of existence, had the skin undergone the slightest atrophic change, such as was apparent in this case. The two cases, therefore, did not approach each other very closely.

Dr. S. POLLITZER said that the original description of parakeratosis variegata was as different from this case as it was possible for two skin diseases to be. In the original case there was apparently a reticulation of almost the entire cutaneous surface, showing normal skin between slightly raised glistening linear areas, strongly suggesting an extensive reticulated lichen planus annularis. In fact, Besnier, who saw the case before Unna, looked upon it as probably some form of lichen planus. In Dr. Anthony's case, the disease did not resemble that picture in any respect. The network arrangement of the papules was entirely wanting. In this case there is pronounced pigmentation, with some attending atrophy, which was a feature entirely absent in parakeratosis variegata as the speaker knew that disease. There were other points of difference too numerous to mention: in fact, the case bore absolutely no resemblance to Unna's original case.

Dr. JAMES C. WHITE said that in his case, even in the most advanced lesions, which were some six or eight inches in diameter, the pigmentation or coloration did not advance beyond a very slight degree, and was what might be called rust red.

Dr. S. POLLITZER said that in Unna's original case the eruption consisted of reticulated patches which covered the entire trunk and the greater part of the upper and lower extremities. The eruption presented the appearance of a glistening blue-red network covering the body.

Dr. ANTHONY said he was well aware of the description of the original case of variegata referred to by Dr. Pollitzer, which was published in 1890. Since then, however, a number of cases had been reported in which the reticular arrangement of the lesions was entirely absent, and he was inclined to believe that Dr. Pollitzer laid too much stress upon that single feature of the eruption. Personally, he regarded it as of very little importance.

Dr. FRANK H. MONTGOMERY said that in the case seen in Chicago, to which Dr. Hyde had referred in connection with the patient shown by Dr. Anthony, there had been neither pigmentation nor atrophy.

Dr. THOMAS C. GILCHRIST referred to a similar case in a young woman of twenty-four, who had had the cutaneous lesions ever since she was four or five years of age. The lesions were limited principally to the body and the upper extremities. They were reticulated, reddish and slightly pigmented erythematous lesions, chronic in character. They disappeared under the use of the X-rays, about a year ago, and had not recurred since.

AN ANALYSIS OF SIXTY-FIVE CASES OF BULLOUS DISEASES OF THE SKIN.

By WILLIAM THOMAS CORLETT, M. D., L. R. C. P., London.

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Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

THE difficulty of classifying bullous dermatoses has already engaged the attention of this Association, and still remains one of the problems upon which additional light is sought. The history of dermatology shows that even with the more clearly defined and what may be called regular affections of this class, much discussion, leading at times to controversy, took place before any unanimity of nomenclature was adopted. Sauvages in his *Nosologie Méthodique*, published in 1770, employed the term *pemphigus* (πεμφιγίς, bulla or blister) in writing of an affection previously described under various names by Hippocrates, Galen and Aëtius. Willan and Bateman, writing of bullous affections in 1808 and 1814 discredited the existence of pemphigus as given by Sauvages, and clearly described under the name *pompholyx*, the pemphigus of to-day. In modern times there is also a difference of opinion as to what constitutes the essential features of this group.

A cursory review, therefore, of some of the cases that have come under the writer's observation in Cleveland, together with the difficulties of classification in many instances, may not be without interest at this time.

Pemphigus (Frequency 1 to 184, or 0.543 per cent.)—The writer's experience conforms in the main with the returns of this Association in placing it among the rarer forms of cutaneous diseases. The combined returns of this Association for two decades ending with 1897, gave 1 to 784 of all diseases of the skin reported, or 0.123 per cent. While in notes of 11,964 diseases of the skin taken by the writer, pemphigus occurred 20 times, 1 to 600 or 0.167 per cent. This probably does not represent the true ratio existing in this locality, because many cases were seen in consultation, which was not the case with a considerable number of mild or self-limited dermatoses treated by the family attendant.

Of the twenty cases of pemphigus, the mucous surfaces were attacked primarily in one¹, while in cases seen after repeated attacks, or involving extensive areas, a few only show involvement of the mucous surfaces. The contents of the bullæ was in no instance observed to be auto-inoculable as seen in some other forms of bullous diseases. My notes show a preponderance of cases in the female, sixteen to four of males. The average age at which the disease first appeared was thirty-seven, the youngest being three and one-half years, and the oldest sixty.

Internal treatment seemed to have but little effect on the disease, nor could I discover that arsenic had any marked distinction over other tonics, such as iron, strychnine, etc. Certainly it has not been followed by the specific action ascribed to it by some.

Pemphigus foliaceus—According to the returns of this Association, pemphigus foliaceus is of exceeding rarity, having a statistical frequency of 1 to 9094, or 0.0003 per cent. Crocker places it at 1 to 5000 in London.

The mental picture I had formed of this disease has never been encountered in actual practice. Two cases which were reported as dermatitis exfoliativa, gave a history of having had blebs early in the disease, which in this particular, as well as in the subsequent course of the affection, brought to mind the possibility of their being pemphigus foliaceus; but in the first instance no blebs were seen during the time the case was under observation, and in the second, which I trust may be seen at this meeting, the blebs were a minor and not a constant accompaniment.

What appears to be a distinct affection, yet one which has given rise to much uncertainty in classifying, has occurred in the writer's experience with comparative frequency. The more common features may be given as follows:

Most of the cases have occurred after middle life. The previous history varied, in two instances a slight impairment of the general health was recorded, and in one what was called eczema, had preceded the outbreak of bullæ nearly two years. Again, the disease made its appearance without any premonitory symptoms by the appearance of a blister of small size, prone to rupture and followed by others in the neighborhood. These lesions merged, in some instances, forming extensive denuded areas of irregular shapes and sizes. In all a marked tendency to extend at the margin by a serous undermining of the epidermis was observed. Further the involved areas were for the most part covered with shreds of epidermis, mingled with a serous

exudate and the formation of pus, especially in protected positions like the umbilicus, the inguinal folds and beneath the mammary glands in the female. In addition a few flaccid blebs on various parts of the body were commonly seen. Falling of the nails of one or more fingers or toes with suppuration was also noted in some. Finally, the involvement of the mucous surfaces took place, giving rise to excoriated patches in the buccal cavity, marked anorexia, sometimes diarrhœa, more rarely bloody stools, accompanied by marked debility and finally terminating in death in the course of from a few weeks to a few months. Two cases of a milder form recovered, and another now in the Lakeside Hospital, seems well on the road to convalescence. The mucous membranes were not involved in either case, nor are they thus far in the case now under observation.

Cultures made from the contents of the bullæ have in most instances shown the presence of the staphylococcus aureus, and in one, a case at Lakeside Hospital examined by Dr. L. W. Ladd, the blood also showed this organism. Cases in which an autopsy was allowed have in most instances shown denuded patches in the gastro-enteric mucosa.

Seven cases have been recorded (1 to 1709) of which the following, taken from the hospital records, may be given briefly as a type: G. C. R., age fifty-four; admitted August 22, 1904; died October 5, 1904.

Family History—Sister died from "lung trouble," grandmother had "salt rheum," otherwise negative.

Personal History—A farmer, always healthy, typhoid at seventeen years of age, with good recovery. Measles, chicken-pox and mumps when small. Negative history of all other diseases. No history of trouble with eyes, ears, nose, throat, chest, stomach or bowels. No history of syphilis or gonorrhœa. Seldom takes alcoholics.

Present Illness—About a year ago present illness is supposed to have first made its appearance, but the history shows it to have been only a mild eczema of the axillæ, where it remained several months, it then appeared on the chest and on various parts of the body in the form of small blisters, which easily ruptured, leaving excoriated areas. At the present time the axillæ are to a slight extent involved, while on the chest there are several large, flabby bullæ together with epidermic shreds and excoriated areas. In the vicinity are several quarter-dollar-sized, thick yellowish crusts, which are easily detached. There are two groups of lesions on the back and others on the arms and legs. The first change noted in a few lesions, was the appearance of an erythema with a prominent serpiginous outline. Within

this zone the skin appears normal. This again encloses a central erythematous area in which the bulla forms. This erythema is not a conspicuous feature, and in only a few lesions at a very early stage can it be seen.

Physical Examination—Well built, well nourished man. Eyes, ears, nose, mouth, throat—negative.

Heart—negative. Abdomen—negative. No œdema of shins. Knee jerks normal. No general glandular enlargement.

August 24. *Blood count*—

| | |
|--------------------------|----------------|
| R. B. C. | 5,760,000 |
| Hæmoglobin | 90. |
| W. B. C. | 11,500 |
| Differential Count | 350 cells |
| Polymorphonuclears | 69.5 per cent. |
| Small mononuclears..... | 22.8 per cent. |
| Large mononuclears | 22.8 per cent. |
| Eosinophiles | 2. per cent. |

Urine—Slightly cloudy, sp. gr. 1020, acid, no sugar, faint trace of albumin. No casts. Temperature normal. Was given applications of glycerite of tannin, 1 part to 3 of black wash.

August 29. Patient improving, only an occasional blister. General health continues good.

September 2. Patient given Fowler's solution. Temperature 99.2°.

September 20. Patient not doing so well. Arsenic discontinued. Few new lesions. Lesions painful. Patient placed in a continuous tub. At times is nauseated. Bowels are constipated. Temperature 103.6°.

September 23. Temperature normal.

October 3. Lesions on back, chest and sides of hips have slightly improved, but fresh lesions have appeared on arms. One or two excoriated patches in buccal cavity. Tub discontinued.

October 5. During the past two or three days nothing retained by stomach. Temperature 100.6°. Restless at night. Retention of urine. Patient died.

Autopsy—Numerous excoriations of skin over body and extremities of various shapes and sizes. Largest ones on arms, axillæ and bends of knees, and smaller lesions scattered over chest, back, sides, neck, extensor and flexor surface of extremities and genitalia. Lesions extend into and through the derma. Some of them surrounded by new skin at edges. Some have an island of normal skin in center. Edge of lesions well defined and almost perpendicular, some reddening, but no marked inflammation. Base is composed of fresh granulation material. In some places there is scar formation.

Spleen—Small, dark, firm reddish color. Slight increase in fibrous tissue.

Kidney—Normal size, slight increase in fibrous tissue, capsule strips with difficulty. Cortex 5-8 mm. thick.

Liver—Yellowish pink color. Some increase in thickness of capsule. Some fatty degeneration.

Stomach—In folds of mucosa there is some loss of tissue with exudation of bloody fluid.

Intestines—Hyperæmic. Lower portion ileum quite hæmorrhagic and there is considerable bloody mucous exudate. Appendix normal. Retroperitoneal glands not especially enlarged.

Heart—Negative.

Aorta—Slight sclerosis.

Lungs—Crepitant throughout.

On microscopical examination of organs there is noted congestion of lungs, chronic parenchymatous and interstitial nephritis, congestion of kidneys: acute congestion of spleen; stomach and intestines.

Skin—Varied picture. Section 1: Corneal layer and part of the rete are separated from rest of rete and infiltrated with round cells and contains considerable hæmorrhage. Deeper layers show round cell infiltration and some fibrous tissue formation. Blood vessels numerous and dilated. Very little change in the underlying fascia.

Section 2. Epidermis entirely lacking in center of lesion. At edges is a thick layer of rete mucosum with gradual merging into surrounding normal skin. The base is composed of the papillary and reticular layers of the dermis, which is quite dense and contains numerous dilated vessels.

In attempting to classify these cases of bullous excoriative dermatitis, some presented a certain resemblance to bullous impetigo, but the affection was malignant and usually pursued a fatal termination. Again, erythema multiforme answered to some special phase of the eruption, but the eruption was not especially multiform, nor has erythema been a constant or conspicuous symptom. Again, joint or cardiac complications have not been observed. The presence of the staphylococcus aureus and apparently the locally infectious character of the disease have suggested a coccogenous dermatosis or toxemia, but exact knowledge as to whether the microorganisms found are the cause or an effect of the process is wanting. Finally, the cardinal features—the formation of flaccid bullæ, soon rupturing, giving rise to excoriated areas, the extension of the process over the

greater part of the body, together with its fatal termination, have given rise to the suggestion that it was pemphigus foliaceus.

While visiting Professor Riehl's service in Vienna three years ago, a case of pemphigus foliaceus was shown, which bore a very striking resemblance to those under consideration. An absence, however, of the repeated formation of crusts and adherent lamellæ, together with a more acute course than is usually ascribed to pemphigus foliaceus, render it difficult for the writer to accept this solution, and retain his original conception of the disease as described by Cazenave.

Closely allied to the cases detailed are those of so-called pemphigus of the newborn, of which, through the courtesy of Dr. Charles Gentsch of this city, I had the opportunity of studying three cases in 1888.² They were limited to the practice of a midwife and were thought to be due to septic infection at the time of birth or soon after delivery. A fatal termination took place in all within a fortnight after birth.

The disease occurred in infants born at term and well developed. The first symptom was the appearance of an eruption during the first week after birth. In one instance, it began, according to the mother's statement, on the fourth day, appearing first at the angles of the mouth and about the genitals. From these foci it rapidly extended, for on the tenth day when the case was first seen *post mortem*, nearly three-fourths of the cutaneous surface was involved. At this time the skin presented the appearance of an extensive scald. A few flaccid bullæ, together with loose shreds of epidermis, and extensive denuded areas were observed. The palms and soles were but little affected. A cadaverous odor was present. The possibility of congenital syphilis was considered and on examination three bean-sized reddish lesions were found on the mother's breast. The epidermis was easily detached, although no noteworthy serous exudate was observed. There was a pink rash on the abdomen. No itching was complained of. No definite evidence of syphilis could be found in either parent.

Notes abstracted from another case are as follows:

Family History—The mother strong, has three older children who are in good health. Negative as to syphilis or venereal disease in father.

The mother says the baby was plump and apparently doing well, when on the fifth day the disease appeared. At first the child was restless and passed a few greenish stools, a few hours later a reddish rash was noticed on the anterior surface of the neck, just under the

chin. The following morning, about fourteen hours after the rash was first noticed, I saw the case.

The eruption was limited to the anterior surface of the neck and upper part of the chest. It was of a dark-reddish color, and on the neck the epidermis was raised into flat, transparent blebs which easily ruptured. The following day it had reached the umbilicus, extending at the periphery in a continuous wave, its main direction being downward. On the neck and upper part of the chest, the region first invaded, the epidermis hung in loose shreds, leaving in places extensive raw surfaces. The same cadaverous odor was present which was so marked in the preceding case. On the third day blebs appeared on different parts of the body; the child was failing rapidly and took but little nourishment.

On the fifth day the eruption was at its height. It consisted of a few small blebs, extensive raw surfaces, and floating areas of cuticle on different parts of the body. The face escaped, as did the hands and feet; on the forearms and legs, but few lesions were present. Death took place on the sixth day of the disease. (For a more detailed report with literature, see the *American Journal of the Medical Sciences*, April, 1894.)

Impetigo Bullosa—Under this caption have been described under various names, such as Pemphigus Contagiosus,³ Pemphigus Contagiosus Tropicus,⁴ Epidemic Pemphigus,⁵ and Impetigo Contagiosa Gyrata,⁶ an affection of which the present writer has seen fifteen cases which were reported in the *Cleveland Journal of Medicine*, December, 1898. They occurred during the summer and autumn of that year among the troops that had participated in the Spanish-American war. Similar cases had not previously been encountered, nor have any been met with since. In these cases, although the eruption was often extensive, no grave constitutional symptoms were observed and recovery took place within a few weeks. The serous or sero-pustular contents of many of the bullæ was in several instances observed to be auto-inoculable. The staphylococcus aureus was found in some of the cultures made from the blebs.

Dermatitis Bullosa—A provisional name given to two cases which appeared in 1905.

The first was the daughter of a medical man, aged eighteen, who attributed the eruption to the dye from colored hose. The eruption came first on the feet, which the patient described as being red and inflamed, which was followed in a day or two by large blebs or blisters. When the case came under observation five days later, the feet and ankles were nearly denuded of epidermis, and the lower half of the legs were involved. The eruption consisted of a severe dermatitis

with excoriated patches and flaccid bullæ of various sizes, which ruptured easily, giving rise to sero-purulent exudate, resembling very closely the more general eruption previously described. The hands and forearms were beginning to be involved, they were erythematous, with numerous vesicles and a few small bullæ. Under a moist bichloride dressing followed by the tannin-glycerine, 1 part, to black wash 3 parts, resolution took place without further spread.

The second was met with in a child of five years. It was likewise limited to the hands and feet. The eruption consisted of pea-sized vesicles, rather superficially situated, and only moderately itchy. The eruption seemed to occupy the position between eczema and pompholyx.

Dermatitis Herpetiformis—Twelve cases of this affection have been recorded (1 to 997 or 0.10 per cent.) Scarcely one-half of this number, however, have presented this disease in pure type, others have presented certain features which call for special mention. Since presenting the report of a case before this association in 1898, entitled "An Unusual Bullous Eruption, Limited to Certain Areas and Recurring at Irregular Intervals,"⁷ which gave a history of having had seven attacks, always recurring on the forearms and inner aspect of the thighs. A second case has been seen in which the eruption was limited to the face.

The patient, a boy aged fourteen, gave a history of having had outbreaks of a pruriginous eruption similar to the one for which relief was sought, always occurring on the cheeks and forehead, and lasting several weeks. The disease consisted of papules, vesicles and a few small blebs, together with a dermatitis not unlike that observed in acute eczema. The recurrence could not be associated with any special season of the year, and they varied in frequency, the preceding attack took place about six weeks ago. A distinct herpetic arrangement in some of the lesions suggested an herpetic origin.

Epidermolysis Bullosa Hereditaria has been encountered three times. Nothing of note has been observed in these cases, excepting the common observation on the part of the parents that slight injuries were followed by the formation of a blister. The disease has been most intractable, and treatment has not given any marked relief.

Urticaria Bullosa—One case, a girl aged ten years, was convalescing from a severe attack of la grippe, when urticaria over a greater part of the body appeared, followed by a few bullæ of various sizes. The urticarial lesions were pronounced and unusually prominent. Recovery took place within a few weeks, and the eruption has not recurred for six years.

Pompholyx—Five cases have been recorded. In many instances the difficulty of distinguishing between pompholyx and eczema was truly great yet in some the disease presented a clear type.

In conclusion, while I believe the clinical groups of this class of affections are sufficiently distinctive for ordinary diagnostic purposes, yet hard and fast lines cannot at this time be drawn between them. There are in each group many cases which conform to the type, at the same time a large number present departures from the standard, which render it in many instances a matter of personal opinion as to what group they belong.

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- ⁴ Munro: Pemphigus Contagiosus Tropicus. *Brit. Med. Jour.*, April 29, 1899, p. 1021.
- ⁵ Stelwagon: Diseases of the Skin, 1905, p. 351.
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DISCUSSION.

Dr. BURNSIDE FOSTER said he was much interested in Dr. Corlett's experience with these cases, as he had frequently had difficulty in deciding where to place some of the bullous inflammations of the skin. He had in mind two cases of what he had called pemphigus foliaceus, both of which ended fatally. On the other hand, he had seen a number of cases of pemphigus that ran a severe course and recovered.

As regards pemphigus neonatorum, he had seen an epidemic of these of a mild type. All the cases recovered, and he had then put them down as cases of impetigo contagiosa of the bullous type. Four of these cases occurred in the practice of one midwife, and one in the family of a neighbor who had assisted the midwife.

Dr. THOMAS C. GILCHRIST reported the case of a woman, forty years old, who came into the hospital with a bullous eruption of one arm, extending from the shoulder to the wrist. The bullæ were thin-walled and tense, from bean to walnut size, and ruptured upon slight friction. The woman was otherwise in good health. She was examined by a neurologist, who could find no nerve lesion. The cause of the eruption was not ascertained, and the lesions finally disappeared. Smears and cultures made with the contents of the bullæ were sterile and the experimental inoculations gave no results.

With reference to pemphigus foliaceus, Dr. Gilchrist said he had seen at least five cases. With the last one, quite a series of experiments were being carried out. Smears were made, and the spirochæta forms of organisms were especially looked for, with negative results. Inoculation experiments were also negative. The speaker said that with pemphigus foliaceus, relapses were more apt to occur when the lesions involved the mucous surfaces of the mouth or intestines.

A CASE OF MULTIPLE KELOID.

By E. D. NEWMAN, M. D.

Dermatologist to the St. James, and German Hospitals, Newark, N. J.

M. K., age forty-nine, white; occupation coal and iron miner, was referred to the Dermatological Department of the St. James Hospital. There is no syphilitic history, and no evidences of such disease.

He has a large number of keloidal growths, situate on his forehead, scalp, neck, chest, back, groins, arms and lower extremities; they are of variable size, measuring from 8 millimetres to 20 centimeters in length, and from 8 millimeters to 18 centimeters in width. The growths cause him no inconvenience whatever.

Gross Appearance: the surfaces are mostly flat, although some show a convexity and other a concavity; they are firm but elastic in consistency, pinkish in color, with small blood-vessels coursing through the growths, trabeculæ running in various directions, which enclose areas of gray striations; the margins of most of the growths are slightly raised and of a deeper shade of pink than their interiors.

Behind the left ear, there is considerable thickening, and the lobe thereof, is bound down to the surrounding tissue. Below and behind this ear there are four points of ulcerative process, which probably will cause extension of keloidal process.

There are some acne lesions scattered over the back, and one has an indurated feel and possibly might become the nidus of another growth. The two growths over the left shoulder have at various times discharged a thin, yellowish and offensive fluid.

Number, location, and size:

On forehead: There are five small tumors varying in size from 8 millimeters to 2 centimeters.

¹ Reported at the meeting of the Physicians' Club, February 9, 1906.

On scalp: There are three growths: 1. 3 cent. long by 2 cent. wide; 2. 5 cent. long by 1 cent. wide; 3. 2 cent. long by 1 cent. wide.

On groin: two growths: 1. 5 cent. long, 1 cent. wide; 2. 5 cent. long, 1 cent. wide.

On outer aspect of right knee: one growth (7x1 centimeters).

On left arm: one growth (7x2 centimeters).

On front of chest, beside the large growth extending downward from left ear, are two growths (13x2.2 centimeters, and 4x1.2 centimeters).

On back: five growths: 1. Circular in outline (2 centimeters in circumference); 2. Egg-shaped, (7.2x5 centimeters); 3. Shaped like figure 8 (7x5 centimeters), probably formed by the union of two growths; the line of demarcation is entirely lost. 4 and 5. Are very close to each other, measuring 7x5 centimeters and 4.2x3.2 centimeters, respectively, each with a distinct elevated edge; these two growths will probably unite and form one.

From the left ear running downward is the largest growth, irregularly quadrilateral in shape, measuring from the lobe of ear to the lowest point of growth 20 centimeters; the greatest width being 18 centimeters. Notwithstanding the immensity of this growth, the patient has very fair motion of his head.

Under the right ear one growth (13x1 centimeters).

History: About thirty years ago, he noticed two protuberances (probably tubercular), one under each ear; these caused him so little inconvenience that he did not resort to treatment; about eighteen years ago the one under right ear ruptured spontaneously with resultant scar and keloid. About March, 1892, he was operated for growth under left ear. I have endeavored to ascertain the diagnosis made and the nature of the operation performed at that time, but without success. The two growths on the loin were preceded by abscesses.

The growth on knee followed a scratch by a piece of barbed wire.

The patient has no positive knowledge of the order of appearance of the growths, but with much positiveness asserts that he was absolutely free from these growths prior to the operation.

PLATE XXXVII.—To Illustrate Dr. E. D. Newman's Article.



SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

342d Regular Meeting, May 22, 1906.

DR. GEORGE H. FOX, President.

Bullous Erythema Multiforme. Presented by Dr. L. D. BULKLEY.

The patient, a child six years of age, had diphtheria in 1904, whooping cough in 1905, and measles two weeks prior to present trouble. This began as an eruption around the mouth and head; subsequently all parts of the body had become involved, especially the buttocks and genitals. There had been little itching. Patient had been three times unsuccessfully vaccinated, and has at the present time adenoids. Lesions are bullous and vesicular, varying much in size and form and containing either clear or hæmorrhagic serous fluid. They are in all stages, and skin is in all stages of resolution. Many of the broken bullæ bear scabs and crusts. On many parts of the body, especially well seen on the back, are erythematous patches, slightly raised, of varying size and shape. The eruption appears on the anterior portion of the tongue.

The urinary examination showed a specific gravity of 1015, and the microscopic examination was negative.

Dr. Bulkley presented this case for diagnosis as being one of bullous erythema multiforme, basing his diagnosis upon the natural healing of the erythematous blotches here and there. There were no pustules. There were two or three big bullæ upon the ankle and a small lesion on the front of the tongue which had disappeared entirely.

Dr. Fox stated that he had treated during the day a case in which there were bullæ which spread all over the skin, and he applied the term pemphigus to this form, but there was some doubt as to whether the term was properly used or not, as pemphigus terminated fatally.

Dr. PIFFARD said it did not appear to him to be a case of pemphigus, as he disliked very much to diagnose a case under this designation. He would rather consider it a form of eczema. Dr. Piffard then read observations he had made in his book on diseases of the skin, concerning pemphigus, which can be found in that book on page 347.

Dr. BULKLEY said that many of these cases had at one time been called hydra, but that they were now generally called pemphigus.

For Diagnosis. Presented by Dr. BULKLEY.

Child, aged seven. Patient has had measles, and following that a papular itching eruption chiefly involving the cheeks, forehead, nose, arms, and legs. Eruption consisted of inflammatory papules, some of which were eroded from scratching.

The specific gravity of the urine was 1010, and the microscopic examination was negative. The child has been in the hospital since the

20th of April, just a month. All kinds of treatment have been used without producing any practical result.

Dr. Bulkley said that it had continued in its present condition for about two years, and he had seen it for a month or two; he said there had been a great deal of irritation about the body and lesions. The child had been under treatment and he had taken up the case for a month or two. He had suggested the possibility that it might be dermatitis herpetiformis rather than eczema. Dr. Bulkley thought very well of the use of ichthyol and said that his experience with it had been most satisfactory. He had treated an old gentleman with ichthyol some six months before, and he had experienced the greatest relief in the use of ichthyol together with buckwheat flour. By mistake, however, the patient had at one time taken the self-raising buckwheat flour, and it had seriously retarded the progress of the case, but ordinary buckwheat flour made a delightful application.

Palmar Syphilide. Presented by Dr. Fox.

The patient, a young man, had suffered from an initial lesion four years before, and had been treated by inunction; he showed a syphilide of the palms. The present affection had come on quite recently, and there was nothing on any portion of the body. He had not experienced any trouble since the first attack. The question propounded was whether the symptoms were of recent origin or not. Four years ago he had had a bubo and chancre, but the irritation on the palms he was inclined to believe was recent in its origin, and not traceable back to the trouble of four years ago. There were no sores on the body, and the old symptoms had all disappeared. There were no sores in the mouth, the teeth were good, no hair had fallen out, and it was a case in which the history did not correspond with the present condition of the patient.

Dr. MORROW stated that he had seen a case in which lesion had entirely disappeared, develop again four or five years afterward. He would naturally suppose that in the present instance the affection had arisen within six months or a year. He had recently read a text-book by a prominent specialist who stated that there might be a recurrence in from ten to eighteen years, and he had read of one case which made a reappearance twenty years afterward. It was difficult in such instances to distinguish whether it was early or late. He said that secondary lesions were contagious for ten years, and added that this distinguished writer would not sanction marriages in such cases until there was a complete disappearance of symptoms for five years.

Dr. PIFFARD said he was in accord with the statements that had been made, and that he knew that there was a possibility of a relapse from an old case that might very readily produce such a condition as had been shown with reference to the palm of the hand. He had known of relapse coming back after ten years. A case was quoted of a return after fifteen years, in which both hands were affected, and in which case the symptoms were characteristic as in the present. The use of mercuric sulphide and arsenic did not seem to heal up the diseased surface.

Dr. Fox then remarked that he was very glad to have a consensus of opinion

that there was a possibility of recurrence four years afterward. He had never himself seen it after the first year. During many years of practice, and while delivering lectures at various institutions, he had advocated in the treatment of primary lesions the use of chrysarobin, and had used it with great success. He thought that this appearance of the palms might possibly be due to the early trouble, but from the history of the case he was unable to trace it back as far as four years before, but believed that possibly the patient had not given him a full and complete history, and that possibly the affliction might have been brought on by some other means. He said that it was possible to have psoriasis or eczema of the palms but it was not the rule, although with few exceptions one palm only was affected, and he generally based his diagnosis upon this condition of affairs before entering into the history of the case, and that while eczema affected both palms the syphilides only affected one. The latter form was generally in the center of the palm, forming a ring, but the number of lesions occurring in both palms was almost proof of recent infection. Dr. Fox stated that he was inclined to believe that this case was a manifestation of the early disease, although it was precisely what was seen in the first six months. Under the administration of sulphide of mercury, there had been a marked improvement.

Dr. PIFFARD spoke concerning a case of second infection he had treated some months ago, in which there had been a primary lesion. The patient had had syphilis more than fifteen years ago. Another case of recurrence five years back was given. It had been diagnosed actinomycosis, and it was the only case of this kind that he had seen. The disease had been contracted by his patient in caring for horses at Providence, R. I. It appeared that in cleaning up the stalls he had cleaned with his hands horses affected with erythemata, and the disease had been communicated to him before he had cleansed his hands.

Another case was that of scales appearing on the palms and other parts of the body, in which chrysarobin had been used and the trouble had disappeared.

Dr. MORROW spoke of a case of the same character which had been refractory through injection, and he had used mercurial plasters and other methods of treatment without any improvement, and stated that this case was illustrative of the absolute uselessness of any form of mercurial treatment, and said the same remarks might be applied to lupus affecting the abdomen. In the case he had presented some time ago, good results seemed to have been secured by the use of nitrate of bismuth. He had also cauterized the lesions, and there had been no further recurrence.

Dr. BULKLEY spoke of several interesting cases he had recently treated with satisfactory results in which he had used aristol and iodoform with absorbent cotton in the treatment of cutaneous eruptions.

Dr. MORROW said that he had used iodoform in a recent case, but it had given no relief.

Dr. MORROW stated that it was his experience that the strength of the chrysarobin depended to a large extent on the place where it was purchased. In a case which had come to his office he had advised the patient to use chrysarobin and had directed him to purchase it at a drug store where he was entirely familiar with the character of the goods sold. The patient, for reasons of his own, had gone to some other drug store and used the chrysarobin without any apparent effect. Upon returning to him at a later period he advised the patient to go to the place he had first recommended, and this time the results were all that could be desired. His idea of the proper method of determining how chrysarobin acted on that patient was if a discoloration was produced; if there was none, then that was a sure indication that the drug was not of the proper grade, but as soon as there was a discoloration, no matter how slight, it was evidence that the chrysarobin was doing good work.

BOSTON DERMATOLOGICAL SOCIETY.

March Meeting.

DR. F. S. BURNS in the chair.

An Indigenous Case of Favus. Presented by Dr. C. J. WHITE.

The affection began in the first year of life. The boy was born thirteen years ago in this country, and his parents are also native born. There are three sisters and two brothers with whom he has always lived, and they and also the parents have never had any disease of the scalp or nails. There is a story in the family that the patient, when an infant, was taken to visit a family from which, the father has thought, the boy became infected.

The entire scalp, almost, is affected. The parietal, temporal, and occipital regions are thickly covered with very dry, light yellow colored scales firmly adherent to the scalp. At the outer borders of the involved regions, appear numerous discrete round scaling lesions, large pin's head to pea size, with pronounced hollowing of their centres. The typical scutula of favus. The hair generally is thinned, dry and broken off. the vertex, the upper part of the occiput and a path through the middle of the scalp are atrophied and for the greater part devoid of hair.

An indigenous case of favus, so extensive, attracted the general interest of the Society. Although it appeared, from the boy's evidence, that no other person in his family is or has been affected with a similar scalp disease, the possibility of contagion from a cat should always be kept in mind. The Society was interested to hear Dr. J. C. White remark that before the immigration of Poles, Russians and Italians became so extensive as in recent years the occurrence of favus in our native born people did not seem so exceptional as at present, but that it has always been a rare affection. He had recently seen a case upon the shoulder of an American gentleman, in the ringworm stage, three to four inches in diameter, in the center of which were several large favus scutula. It seemed to be a common opinion among the members of the Society that patients with favus notoriously neglect themselves, three to four visits being a fair estimate of the amount of treatment with any one physician.

A Case of Fine Papular Syphilide with Pronounced Follicular Hyperkeratosis. Presented by Dr. F. S. BURNS.

A male patient, 27 years of age, with a previous history of good health, developed a penile chancre in November, 1905. In December, the following month, a generalized maculo-papular exanthem appeared accompanied by pharyngitis, and a few weeks later by a characteristic luetic alopecia. Early in January, 1906, the second month after infection, another eruption was noted which differed markedly in appearance from the first one. It is on account of the latter outbreak that the patient is shown this evening.

On the entrance of the patient to the Ward for Skin Diseases in the Massachusetts General Hospital a few days ago, the following description was recorded: The scalp presented a typical luetic alopecia with sparsely distributed scaling papules over its surface. A moderate amount of acne vulgaris was seen on the face, possibly due to the ingestion of iodide of potassium before the patient's visit to the hospital. On the neck, particularly over the sides and back, could be seen with a fair degree of clearness, a coarsely mottled, light pigmented condition with a suggestion of leucoderma as well as hyperpigmentation (vitiligo syphilitica).

Generally disposed over the trunk and limbs was a fading maculopapular roseola. The palms presented large flat scaling papules of a brownish red hue.

The rash that appeared in January, at first sight, might have been mistaken for ordinary keratosis pilaris, but on close inspection it was seen to possess more peculiar appearances. It affected the anterior and posterior aspects of the thorax, gradually diminishing in amount and degree of prominence, toward the lower part of the trunk. The extensor surfaces of the upper arms and the buttocks were slightly involved.

Over these affected regions there was a marked follicular, fine papular eruption with a noticeable tendency to grouping of the lesions. Associated with this eruption was a pronounced degree of follicular hyperkeratosis, a large portion of the lesions possessing spinelike projections, from a sixteenth to an eighth of an inch in length.

As to the eruption just described being a follicular syphilide, no doubt was expressed by the Society; but that the extreme hyperkeratosis belonged to syphilis opinion was not so unanimous. The belief was expressed, however, by several members, that the keratotic feature was of syphilitic origin and that it occurred as an incident to the follicular eruption.

A Case of Tubercular Syphilide. Presented by Dr. ABNER POST.

A male adult patient with a syphilitic history of ten weeks' duration presented a multiform generalized syphiloderm. Over the trunk and thighs could be seen a fading maculo-papular exanthem, while on the arms were lesions varying in size from papules a quarter of an inch in diameter to firm infiltrated, bright red tubercles from one to two inches in diameter. As the larger lesions faded they assumed annular configuration by resolution of their centres.

The brilliant color of the larger lesions was thought a striking and unusual feature of syphilis, though none doubted the diagnosis of that disease. It was suggested that several of the larger areas on the arms bore a resemblance to psoriasis lesions from which the scales had been removed. The frequent and close resemblance of the papulo-squamous syphilide to psoriasis and the great difficulty found at times in differentiating between these two diseases when only a few lesions were present, was discussed.

A Case of Chancre of the Tongue. Presented by Dr. ABNER POST.

A man, thirty-eight years of age, had sought medical advice for a sore on his tongue of three weeks' duration. From a barely palpable lesion the sore had gradually enlarged to its present dimensions. Near the tip of the tongue could be seen a slightly elevated and denuded area one-half inch in diameter, decidedly indurated. An enlarged submaxillary gland could be felt on the left side. As yet no cutaneous evidence of syphilis had appeared.

The patient was an inveterate pipe-smoker and was in the habit of smoking "anybody's" pipe if his own were not at hand.

While no one doubted Dr. Post's diagnosis of initial lesion of the tongue and a majority were inclined to accept his diagnosis, yet few would have cared to commit themselves to a positive opinion before the advent of secondary symptoms.

A Case of Tuberculide. Presented by Dr. C. M. SMITH.

Miss M. B., æt. 18, shoe finisher. Family history negative as regards tuberculosis. Past history: pneumonia and pertussis. The patient has never been strong. The present skin affection began about two years ago, since which time she has never been free from it. The lesions always begin as small acuminate, intensely pruritic papules, many becoming abraded from scratching, in which cases the papules are covered with a crust. After some weeks or months the lesions heal with resulting pigmentation and cicatrices which are from one-sixteenth to three-eighths of an inch in diameter. The affected areas show all stages of development and involution. The shoulders, chest, buttocks, thighs and arms are involved. The abdomen and inner surface of the thighs and arms are exempt. Neither the patient's history nor physical examination give any evidence of syphilis.

In the discussion of this case the diagnosis of tuberculide was tentatively accepted as the history and course of the affection fell within the descriptive limits of that affection. There was, however, a feeling which pervaded the remarks of several members, to the effect that the term tuberculide was frequently used with too little discrimination and that the name was applied at times when no tubercular relation in the lesion or elsewhere in the body could be established.

A Case of Erythromelalgia. Presented by Dr. JOHN T. BOWEN.

The subject was a woman of 39 years of age, a native of Boston, who had been, until recently, a saleswoman. Her first attack had been two years previously, when it had lasted several months, apparently uninfluenced by treatment. Since then she has had a number of attacks, the present one having begun three months ago and persisting with exacerbations. The situation is the left hand and lower arm, which are the seat

of an intense erythema, accompanied with œdema, being especially marked on the ring and little fingers. In places there are slightly raised papular formations of bright red color, which make one think of chilblains. In most places there is a marked lividity. This condition of œdema and redness has been, during the last attack, coming and going, lasting perhaps two weeks, when the œdema disappears and the redness diminishes; the skin, however, not regaining its normal color. The attacks of swelling are rather sudden and are accompanied by pain and numbness. In the last attack the pain was quite severe. When the attacks subside, the two last fingers remain numb, so that if she touches anything she has what she describes as a "shivery" sensation. The affected hand is somewhat hyperæsthetic, and there is a moderate degree of hyperidrosis. There was a slight increase in the surface temperature.

This rare affection presented by Dr. Bowen may at times be open to confusion with Raynaud's disease, as erythro-melalgia may involve both hands simultaneously and in its fluctuating course of redness, congestion and pain may resemble the earlier stages of Raynaud's disease to such a degree that diagnosis is rendered extremely difficult, without opportunity for protracted observation of the patient. When, however, as in this case presented by Dr. Bowen, the affection is unilateral and so characteristic in its phenomena of pain, œdema and passive congestion, without the presence of any atrophic changes, the diagnosis is not difficult if one is familiar with the main features of the affection. Even in this case, where the diagnosis was a matter of general opinion, the striking resemblance of the objective symptoms to Raynaud's disease was remarked upon.

Three Cases of Alopecia Areata in One Family. Presented by Dr. C. J. WHITE.

The mother was treated at the Massachusetts General Hospital in October, 1898, for alopecia areata, and at that time had two smooth bald spots near the forehead and one over the occiput. These areas were round, free from scales and totally bald. After nearly two years of treatment the scalp appeared quite normal.

This woman was married in 1900 to a man whose scalp was apparently free from any signs of alopecia areata. In 1904 this man developed bald patches in his beard, and two months later noticed similar patches in his scalp. At one time there were, according to his story, four bald areas on the back of his head and two near his forehead, all of which were round, smooth and free from hair.

On February 22, 1906, the mother noticed in her little girl's scalp an area of baldness and brought her to the Massachusetts General Hospital.

The mother is distinctly intelligent and asserts that she is careful that each member of the family shall use his own comb and brush. Nevertheless the child has played with her mother's ornamental hair comb.

On presentation, the mother shows a linear, diagonal bald area across

her occiput about two inches long by three-eighths of an inch wide. This patch is smooth, white and shows no exclamation point hairs. The daughter shows a very similar bald area in about the same region of the scalp, but in her case the patch is wider and somewhat shorter. The father presents typical round areas in the beard, and on the scalp are to be seen areas of white hair or bald spaces which together form circular patches.

When, in addition to the sporadic cases of idiopathic alopecia areata one so frequently sees in clinical dermatological practice, such instances of appearance are observed in several members of a family, and even of epidemics, a renewed interest is lent to this obscure affection. Everyone who sees much of this disease occasionally meets probable examples of contagion which inclines one to doubt the neurotic as opposed to the parasitic origin of alopecia areata; or perhaps prompts a more liberal view to admit the possibility of the existence of two affections, closely allied clinically—one a tropho-neurosis, the other a parasitic infection of the scalp. In support of the latter etiology of the disease, the not infrequent epidemics in children's institutions make it seem probable that there is a transmitted contagium of some kind. That this type of the affection also should be almost exclusively confined to children is not more extraordinary than that the *Microsporon Audouini* should be confined, in its human growth, to children.

The opinion was expressed by one member of the Society that the type of alopecia which occurs in children and probably associated with contagion, does not present regularly rounded patches like true alopecia areata, but occurs as irregular, jagged patches of loss of hair. Opposed to this opinion was that of another speaker, who said that he had seen an epidemic in children in which the lesions were all rounded and not to be distinguished from the ordinary type of alopecia areata.

A Case of Parapsoriasis. Presented by Dr. F. S. BURNS.

Theodore P., aged 56, was seen for the first time three weeks ago on account of a skin eruption that had lasted a year. The eruption occurred quite abundantly on the trunk and extensor surfaces of the arms and legs. The lesions consisted in rounded and oval, slightly infiltrated areas, from one-quarter to one inch in diameter, of light buff red hue and covered with fine scales. The scalp, face, legs, and hands were entirely exempt. For the first six months of its duration the eruption progressively spread from one arm where it began, until it attained the amount at present seen. During the past six months little change in appearance has occurred. Subjective discomfort is lacking except for some pruritus when the patient is overheated.

Some of the Society were willing to place this case in the rather recently formulated category of parapsoriasis, while about an equal number preferred to withhold a nominal diagnosis and to recognize the case as belonging to a class of affections not infrequently seen and which seems to partake of some of the features of both *seborrhæa* and *psoriasis*.

A Case of Granuloma Fungoides. Presented by Dr. JAS. S. HOWE.

Male patient æt. 54. Family history negative. Twenty-five years ago the patient was in the Boston City Hospital with an injury to one knee joint. At that time he had an artificial dermatitis caused by a surgical dressing. The present trouble began about seven years ago with lesions on the legs and arms. *Status præsens*: On the back of the trunk, buttocks and legs are areas varying in size from a quarter of a dollar to six and eight inches in diameter; some of them circular in shape, others with gyrate borders. These lesions are bright red in hue, and in many instances with sharply defined borders. All of the lesions are moderately infiltrated, rough and more or less scaly; the scales in many instances being abundant, thin and papery in character and rather firmly adherent. In addition to the active lesions there are slightly pigmented areas of various sizes and shapes, showing the remains of old lesions. The anterior surfaces of the body and thighs present appearances similar to the back. In some of the reddened areas there are islands of normal skin. The eruption itches only at times and is constantly changing; new areas becoming involved as the older lesions disappear.

Little doubt was given to the diagnosis of granuloma fungoides in this case. The duration of the disease and the peculiar appearances were quite consistent with that affection.

A Case of Syphilide of the Face. Presented by Dr. F. S. BURNS.

A male patient, 34 years of age, was affected with an eruption of the face of six months' duration, which on account of its "butterfly" configuration, at first sight bore a resemblance to lupus erythematosus. Both malar regions were the sites of irregularly rounded plaques, two and a half inches in diameter, which were united by a band across the nose an inch in width. The affected skin was of a dull red hue, infiltrated and sparsely occupied by rather firm papules, especially at the borders of the lesion; while disseminated over its surface were a number of pea sized depressed cicatrices.

The patient gave a history of syphilis of thirteen years' duration, and in its early secondary period he received treatment, under his physician, for five months. Subsequent treatment of this case under iodide of potassium completely healed the lesion. Four weeks after his presentation before the Society only the cicatrices and slight pigmentation remained.

The resemblance of the "butterfly" configuration to that frequently seen in lupus erythematosus was striking. It was remarked that cicatrices, as prominent as those seen in this case, have been produced by improper treatment of lupus erythematosus.

F. S. BURNS, Secretary.

NEW YORK SOCIETY OF DERMATOLOGY AND GENITO-URINARY DISEASES.

97th Regular Meeting.

President, Dr. HILL, in the Chair.

Chancre of Lip. Presented by Dr. TRIMBLE.

The patient is presented with the above diagnosis on account of the typical aspect of the lesion itself; although there are no secondary symptoms to verify it.

The case has two points of interest: (1) The length of time of the secondary period of incubation, and (2) the absence of the *spirochæta pallida*, after two very careful pathological examinations.

The man is in robust health, aged thirty-four; weighs about 165 pounds. His family history is good, and his previous history the same. He has had no prodromal symptoms.

The lesion is situated on the upper lip, just a trifle to the right of the middle line; it is large, about the size of a silver half dollar, indurated and ulcerated, and gives every evidence of an initial sclerosis. There is some glandular enlargement in the immediate vicinity of the sore, but no generalized adenitis. From the time of its inception has been a little over four months, and as yet no secondaries have appeared. The case has been under close clinical observation and as above stated the *pallida* have not been found.

Several eminent dermatologists have seen the patient, and they all concur in the diagnosis of chancre.

Xanthoma Tuberosum, Case of. Presented by Dr. KINGSBURY.

The patient is a widow forty-one years of age, a native of this country, of German parentage. Father is seventy-two years of age and is said to have cirrhosis of the liver. Mother died of apoplexy at the age of sixty-seven.

Patient states that she never had jaundice and has always been very temperate. She is a bath attendant and first applied for treatment for the removal of disfiguring lumps on her arms. Lesions in question were confluent xanthoma tumors on elbows and a few discrete ones on forearms. They had been present for over two years but recently had increased somewhat in size. No tumors on knees or in fact upon any other part of body.

The lesions on arms are quite typical ones of the tuberoso form of the disease and in no way resemble those seen in xanthoma diabeticum. When the urine was examined, however, it was found to contain a large amount of glucose and to have a sp. gr. of 1039. During the past few months the patient had lost over twenty pounds and has recently been complaining of considerable thirst.

Psoriasis with Palmar Lesions, Case of. Presented by Dr. KINGSBURY.

The patient is fifty-two years of age, but has only had the disease

for the past twelve years. At present he has large characteristic lesions on trunk, extremities, and in scalp. On both palms are numerous squamous plaques, some of them coalescing. Lesions are also over knuckles and the finger nails are greatly thickened, irregular and pitted. Some of the toe nails are also deformed but to a lesser degree. The man is a silversmith and in polishing metal employs various acids. Although his occupation undoubtedly increases the hyperkeratosis of palms, the patient states that his hands have been in a similar condition at times when he held positions that required no manual effort.

Pigmentary Syphilide, Case of. Presented by Dr. KINGSBURY.

The patient is a dressmaker, unmarried, thirty years of age. Nine months ago she contracted a chancre on left side of upper lip. The lesion was about three-fourths of an inch in diameter and there was considerable induration. In due time it was followed by a papular eruption, general adenopathy, mucous patches in throat, and moderate alopecia.

Pigmentary changes on neck were first noticed about three months after the disappearance of the chancre. The condition soon became quite conspicuous notwithstanding the fact that the woman is a decided blonde.

At present patient is well nourished and in excellent general health, but states that as a young child she was sickly and very delicate and that at this time she had ulcerations on forearm and leg. Her mother furnishes the information that dead bone was discharged from the sores. General appearance of the cicatrices together with suspicious dental malformations suggests the possibility that patient may have also suffered from hereditary syphilis.

Necrotic Granuloma, Case of. Presented by Dr. KINGSBURY.

Patient is a widow thirty-three years old; she is the mother of two healthy children, one ten, the other six years of age. For the past three years she has been troubled with an eruption on forearms and hands that has always been worse during the summer time. It has never been as active in the winter time, however, as it is at present. The forearms are practically covered with circinate cicatrices, averaging about a quarter of an inch in diameter. Some of them are pigmented although the majority are white. Scattered over the forearms are hard papules, many of them are umbilicated and some show superficial ulceration. At the elbows there is some tendency to group formation. On the right hand there are nearly one hundred papules and on left about seventy-five. These are somewhat smaller than those on forearms. Palms are free. Only an occasional cicatrix to be seen on hands. Inflamed and ulcerated lesions on fingers have at times been quite painful but otherwise the disease has caused but little discomfort.

Syphilis, Case of. Presented by Dr. WARREN.

Patient is twenty-two years of age, single, a cook by occupation. Three months ago the spirochæta pallida were found in a suspicious

lesion on the vulva that was said by patient to have been present for about two months. Woman was regularly examined, but no glandular enlargement occurred and no eruption detected although at present there are characteristic patches on fauces.

Urticaria Factitia, Case of. Presented by Dr. KINGSBURY.

Patient is a young Jewess, about nineteen years old. For over two years she has been troubled with considerable irritability of skin accompanied by a persistent erythema. During all this time she has been able, at will, to produce urticarial lesions and by inscribing letters or designs upon patient's back, the familiar picture of textbook "dermographia" can be readily obtained.

Chief interest in case has to do with possible etiology. The girl has a marked enlargement of the right lobe of the thyroid. There is no exophthalmos but the pulse ranges from 100 to 120.

The reporter believes the goitre to be something more than an accidental accompaniment and suggested that possibly the chronic urticaria was an autotoxæmia caused in some way by the abnormal condition of the thyroid gland.

A Case for Diagnosis. Presented by Dr. T. G. LUSK.

Olga N., aged twenty-five, born in Sweden, occupation fancy sewing. Parents living and well; three brothers and four sisters. Two of the former and three of the latter had acne from the fourteenth to fifteenth year. (Patient made it quite clear that their affections differed from hers, and that the lesions consisted of comedones, papules and pustules.)

She had a mild attack of chorea when about twelve years of age and has been very nervous ever since. Her appetite and digestion have always been good, but has suffered from constipation for years, menstruation began at fifteen and normal but has had leucorrhœa for years (she is a virgin).

Four years ago her face suddenly became very red and was covered with small pimples, but she was positive there were no blackheads. She used simple remedies and it was better at times but never entirely disappeared.

She now has a deep erythema over entire face, with numerous deeply situated vesicles and a great number of very small atrophic scars. Her lips are bright red, as if painted. There is entire absence of comedones, papules, and pustules. The case has been under observation for three weeks without any change having taken place.

I regret that the case cannot be seen to advantage in this light.

Erythema, following Erysipelas, closely resembling Lupus Erythematosus. Presented by Dr. H. H. WHITEHOUSE.

Anna B., aged twenty-four, was taken suddenly ill while at work, with a severe chill, followed by a high fever and prostration. She went to bed and an eruption quickly developed upon the face with redness,

swelling and burning pain. The swelling extended to the eyelids, which were soon closed and the red surface became severely blistered over its entire extent. The inflammation extended to the eyes, producing a severe keratitis. The temperature increased to 105° F. and the patient was very ill in bed for two weeks, her physician almost despairing of her life.

When first seen at the Skin and Cancer Hospital, three weeks later, there was still a marked keratitis present, and suffused over the upper part of the face, symmetrically extending over the bridge of the nose, and to the lower part of each cheek was a diffuse redness, sharply margined and not disappearing entirely under pressure. Over the malar eminences were numerous scars, cribriform in character and much deeper than those of a lupus erythematosus. There were well marked telangiectasia over most of the affected area. The reddened surface was devoid of scales or subjective sensations.

Under the use of a calamine and zinc lotion, extending over a period of eleven days, there was a very marked improvement, the color could be expressed and no doubt was felt of its ultimate disappearance.

W. B. TRIMBLE, *Secretary*.

MANHATTAN DERMATOLOGICAL SOCIETY.

49th Monthly Meeting, held March 2, 1906.

Dr. ROBERT ABRAHAMS, Presiding.

Leucoplakia Lingualis. Presented by Dr. B. F. OCHS.

Patient had been under observation and treatment for the past three years. The iodides given in doses until 240 grs. t.i.d. were taken; mercury by mouth, later mercury bichloride by injection and finally injections of mercury salicylate.

Any new treatment seemed to improve the local condition for a time, then no further improvement, but rather retrogression. The use of tobacco did not seem to aggravate the lesions; patient states his mouth felt better when he used tobacco. The subject is thirty-five years old and admits specific infection some years ago.

Dr. I. P. OBERNDORFER said these cases were difficult to handle and usually intractable to any form of treatment. They were to be found in the syphilitic and the non-syphilitic. Recalls a case which cleared up after injections of Hg. salicylate, the bichloride injections and the iodides having no effect; and in another case with dermal lesions on the palms, the mouth lesions did not clear up, but the palmar syphilide responded to the antileptic treatment.

Eczema Seborrhoicum Psoriasiformis. Presented by Dr. R. ABRAHAMS.

Female, age three years; the eruption on face, when first seen, was typical of eczema; recently a more general eruption developed resembling psoriasis, and within the past week typical psoriatic patches on elbows and knees, and on the body.

Drs. GOTTHEIL and OBERNDORFER place such cases on the boundary line be-

tween eczema seborrhoicum and true psoriasis; many cases are closely related.

Dr. COCKS said he had a record of cases which tends to show that nearly 80% of seborrhoic eczema in childhood in after years develop psoriasis.

Xanthelasma. Presented by Dr. B. F. OCHS.

Adult male; had yellow fever nine years ago. Lesions on right and left lower eyelids.

Treatment advocated was, excision, high frequency current and electrolytic needle.

Tuberculosis Cutis. Presented by Dr. R. ABRAHAMS.

Female; nineteen. As a child had hydrocephalus; father died of spinal disease (?). About five weeks ago a small pimple appeared on cheek, gradually increasing in size, then broke down and ulcerated; additional pimples in patches soon appeared on face, resembling seborrhoic eczema. Lesions of somewhat similar character appeared on back of both hands; they are distinctly elevated, the borders showing small nodules, circular in outline and inflamed. The center of patches break down and ulcerate.

Dr. GOTTHEIL regards the hand lesions as verrucous tuberculosis, that of the face frambesial tuberculosis.

Dr. PISKO believes lesions on face and hands to be identical, the latter, however, more advanced than the former. Is not convinced that it is tuberculosis.

Dr. OBERNDORFER prefers to call it lupus; lesions on face, L. erythematous; on hands, lupus verrucosus.

Palmar Syphilide. Presented by Dr. W. S. GOTTHEIL.

Female; circumscribed patch on left palm of two months duration. Patient denies infection. Body clear; no lesions elsewhere; center of patch shows atrophic scar tissue; diagnosis concurred in.

Dermatitis Herpetiformis. Presented by Dr. W. S. GOTTHEIL.

Patient gives history of repeated attacks of an eruption of papules and vesicles on the body and face. Case under observation for the past eighteen months and six distinct attacks were observed. It was this feature which decided the diagnosis.

Dr. BOWMAN said lesions seemed to be due to scratching and infection; saw no distinctive features which suggested diagnosis made.

Dr. PISKO said that diagnosis could not be made from present appearance. The face lesions resemble acne.

Other members agreed in the diagnosis of herpetiformis.

Lichen (Ruber) Planus. Presented by Dr. A. BLEIMAN.

Male; twenty-nine; Russian; typical planus lesions on lower limbs, two years duration; in addition patient shows marked lichen pilaris, involving region of upper thighs.

Lichen Syphiliticus. Presented by Dr. R. ABRAHAMS.

Young man, contracted lues six months ago. Ten weeks after chancre a small grouped papular eruption appeared all over the body; has persisted three and one-half months. Patient had no treatment.

A. BLEIMAN, *Secretary*.

MANHATTAN DERMATOLOGICAL SOCIETY.

50th Monthly Meeting, held Friday Evening, April 6, 1906.

Dr. ROBERT ABRAHAMS, Presiding.

Lichen Syphiliticus. Presented by Dr. EDW. PISKO.

Female, child, nineteen months old, presents a small papular eruption on body and limbs; duration six weeks; parents give no luetic history and apparently both enjoy good health; mother bore four children, all healthy; never miscarried.

Two of the members present agreed with Dr. Pisko in calling it a syphilitic eruption; Dr. Pisko further stating that any other but the diagnosis papular syphilide did not suggest itself to him, he regarding the lesions as typical.

Many of the other members favored the diagnosis of eczema seborrhoicum.

Pemphigus Vegetans. Presented by Dr. W. S. GOTTHEIL.

Mrs. E. H.; age forty-five years; always enjoyed good health until the summer of 1905. At that time her gums got sore, for the relief of which all her teeth were extracted. The gums became worse and have remained in a bad condition ever since, the dentist being unable to take an impression. Local treatment did not influence the condition of the gums; the roof of the mouth and likewise the tongue soon became involved and now blebs were noticed. The derma in both axillæ also show blebs, the latter recently having ruptured, leaving a raw fungating surface. The patient under arsenical injections improved considerably.

Dr. Pisko reports a case successfully treated, where the lesions were confined to the mouth and axillæ.

Dr. WEISS said the lesions in axillæ were pemphigus; in doubt whether the mouth lesions are the same.

Dr. COCKS reports a case where lesions existed on mucosa only.

Dr. GOTTHEIL said pemphigus usually begins in the mouth. The patient may improve for a time, but believes she will ultimately succumb to a more general outbreak.

Eczema Parasiticum. Presented by Dr. A. BLEIMAN.

A young boy, presents symmetrical lesions, involving dorsum of both right and left feet, of many months duration and exceedingly rebellious to treatment. The diagnosis was concurred in; Dr. Pisko dissenting, believing the condition suggestive of tuberculosis cutis verrucosum.

Lupus Vulgaris. Presented by Dr. M. B. PAROUNAGIAN.

Boy, nine years old, give history of an eruption, gradually extending, on face since the age of three years. There are two distinct lesions, the area of the skin intervening being distinctly atrophic. Father of patient died of tuberculosis.

Lupus Erythematosus Presented by Dr. LUDWIG WEISS.

Female; born in Ireland thirty-eight years ago. At the age of thirty-four had an attack of herpes zoster, involving the left side of

chest, beginning at the spine and extending around the axilla to the sternum in front; this zoster was of the gangrenous type and the considerable loss of tissue resulted in an extensive hypertrophic scar (keloid). Two years later a small papule appeared on right cheek; other papules, single and in groups soon appeared and within two weeks the entire face and scalp became involved; the acute symptoms lasted six weeks, gradually improved, but face and scalp never cleared up entirely. At present face is considerably reddened, scaly and shows in addition parchment atrophy in small and even very large patches; scalp less involved. Total alopecia was present up to October last. Since then, new growth of hair, and save for a small bald patch here and there is entirely covered with a good growth.

The members concurred in the opinion that the keloid on chest was due to a gangrenous zoster four years ago. The face and scalp was undoubtedly a lupus erythematosus, though the face presented some features suggestive of atrophica propria cutis.

Keloid (Post operative). Presented by Dr. W. S. GOTTHEIL.

Female, adult, underwent an operation for tubercular glands of the neck four months ago. Recently X-rayed and suppuration followed this line of treatment. The reporter and Dr. Weiss both expressed the opinion that at the time of operation it was probable a focus of infection was not removed and as a result of X-ray exposures, renewed activity in this area, with suppuration.

Tertiary Syphilis; Gumma of Leg—Spinal Syphilis. Presented by Dr. W. S. GOTTHEIL.

H. T.; thirty years, conductor; gonorrhoea six years ago; no history of chancre. May 30, 1903, partial paralysis of lower legs which in a few hours became complete, necessitating vesical catheterization; later vesical incontinence. Was admitted to Lincoln Hospital and after six months left the hospital slightly better and patient has so remained until recently when he began to show signs of further improvement, patient being able to get around with the aid of crutches. Whilst at the hospital he sustained a hot water burn on left leg (patient's statement). This is still an open raw ulcerating cavity about four inches square and fully one-half inch deep, which the narrator regards as a gumma. At present the patient also shows a general faint papular grouped eruption on body and limbs and a smaller ulcerating sore on left shoulder.

The members agreed in the main with Dr. Gottheil; the ulcerating lesions being gummatous; the lesion of cord most probably a hæmorrhagic myelitis dependent upon a luetic endarteritis, rather than a gummatous deposit; the acute onset favors former conclusions.

A. BLEIMAN, *Secretary.*

REVIEW

of

DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

By H. G. KLOTZ, M. D., New York.

Acne., A New Method of Treatment of. ELI MOSCHOWITZ. (*Med. Record*, 1906, vol. lxix. 60.)

Moschowitz has applied Bier's principle of localized hyperæmia to the treatment of acne. Dry cups with rubber bulb attachment, of a diameter of $\frac{3}{4}$ to $1\frac{1}{2}$ inches, are applied once (or better twice) a day for one hour; they are left on for 1 to 2 minutes, then removed to permit a new influx of blood and then applied again; the suction must be but slight, so that no mark is left. The treatment must be repeated on the same area until all pustules have disappeared; each area needs 2 to 5 applications. The reappearance of new pustules is not prevented and requires resumption of the treatment. So far 8 cases had been treated by the method.

Sebaceous Glands on the Inner Layer of the Prepuce, (*The Question of the Occurrence of*). R. PASCHKIS. (*Monatsh. f. Derm.* xli. 483.)

The free sebaceous glands on the inner layer of the prepuce are normal structures, greatly varying in regard to numbers and size, which can be demonstrated already in children; it is still undecided, whether they develop before birth or later in life. It is probable that both contingencies occur, the prevalence of the one over the other depending on individual conditions. In many cases in adults they may be visible microscopically; sometimes they are present in excessive abundance. It is not admissible, however, to attribute such an abundant development to some inflammatory irritation (Delbanco), but the structures rather become more conspicuous by the inflammatory condition.

Dysidrosis, The Anatomical Changes of the Skin in. W. A. NESTOROWSKY. (*Derm Zeitsch.*, xiii. March, 1906 et seq.)

In a very extensive paper, founded on the examination of numerous specimens, Nestorowsky considers dysidrosis without doubt as a disease of the sweat glands and the vesicles as closely connected with their ducts. An exaggerated secretion of sweat precedes dysidrosis, either as a permanent morbid condition (hyperidrosis), or accidentally provoked by some cause or other. Developing under the influence of various agents, not necessarily of the same nature, exaggerated perspiration may accompany

certain disturbances in the sphere of the vasomotor and trophic nerves and produce imbibition, swelling and detachment of the horny layer and obstruction of the excretory ducts of the glands by plugs consisting of horny substance with occasionally attached cells from deeper epithelial layers. Clinically these plugs may be recognized as dark points in the center of the vesicle, but in the later stages they escape observation.

This obstruction of the ducts by plugs may cause the cystic dilatation of their ostium. As a consequence the ducts may burst and pour forth sweat in the surrounding epithelial tissue. Exposed to the effects of the sweat, the epithelial cells become œdematous and swollen, show vacuoles, later on granular structure and decay. The primary vesicle, thus formed, gradually expands. Simultaneously with the retention of sweat, regressive changes take place in the ducts and in the coils, their epithelium undergoing the same processes.

Dysidrosis vesicles may also originate from diverticula of the ducts, or may be due to the influence of the pressure of the fluids in the upper, median, or, more rarely, in the deeper strata of the Malpighian layer. Rupture of the duct and effusion of sweat through lateral ducts may also cause vesicles. During the detachment of the strata of the corneous layer, under the influence of sweat pressure vesicles are formed by the effusion of sweat into the fissure between the corneous and granular layers and by the partial liquefaction of the stratum granulosum. Vesicles may further result from diffuse imbibition of the inter-papillary spaces with sweat which originates from dilated excretory ducts or from larger blisters. The vesicles may develop between or above the papillæ. Larger vesicles are formed by the confluence of small vesicles which owe their origin to several adjoining excretory ducts. The contribution of several ducts is always necessary to the formation of a large blister. This is followed by a complete atrophy of the affected ducts and coils and by disintegration of the vesicle. The regeneration of the epithelium which fills the former cavity of the vesicle, proceeds from the intact epithelial cells of the stratum granulosum and of the Malpighian layer.

Inflammatory phenomena cannot be demonstrated in the beginning of dysidrosis, but they may become manifest during the formation of large blisters as consecutive or secondary changes.

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LYMPHANGIOMA CIRCUMSCRIPTUM.

By S. POLLITZER, A. M., M. D., New York.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

TUMORS of the lymphatics belong to the rare pathological manifestations; those appertaining to the superficial layers of the skin, constitute clinically one of the rarest of all skin diseases. Including even some cases concerning whose proper classification the author's description leaves some doubt there are hardly more than two score of these cases recorded.¹

The patient, the first of the two cases which form the subject of this paper, is a native American girl, of German parentage, seventeen years old, well developed, in excellent physical condition. The lesion for which she consulted me, consists of a group of vesicular structures, situated on the back of the neck opposite the second and third cervical vertibræ, the middle line of the neck passing almost exactly through the middle of the affected area. The mother of the patient tells me she noticed the lesions when the child was a few months old, and that while a few of the vesicular structures have from time to time disappeared spontaneously, or as the result of surgical intervention, others have taken their place, so that the picture as a whole, has undergone no material change. There are no subjective symptoms. There has never been any erysipelatous inflammation.

The most striking lesion consists of an irregularly round, elevated mass about one cm. in diameter, projecting about half a cm. above the surrounding niveau. On close inspection, the surface of this wart-like prominence appears to be made up of a group of irregularly hemispherical vesicular structures, some of the normal color of the skin, some mottled with patches and lines of a bright red hue, and some shading from a dark red into an almost blue-black color. About one cm. above this principle lesion are two isolated, hemispherical

¹ In a recent paper a French writer states that there are not more than fifteen of these cases in the literature.

papules about three mm. in diameter, presenting an even, dead-white color. About the same distance below the central lesion there are again two discrete, round, raised lesions about two mm. in diameter, having a color approximately that of the normal skin, with, however, a faint suggestion of translucence. About one and a half cm. to the right of the principal lesion, there is a minute round elevation one mm. in diameter, having the same appearance as the two lesions last described, but showing on examination with the lens, a bright red spot at one side of the lesion. The lesions were all firm on palpation and not compressible.

The diagnosis of lymphangioma circumscriptum was made and an oval flap of skin including all the lesions and extending down to the fascia was excised; the tissue removed, cut into pieces of suitable size, was immediately fixed in Zenker's solution and subsequently cut in celloidin. The smallest of the lesions was examined as far as possible in serial sections. Sections from the largest lesion, examined with a low power show the papillary and subpapillary region displaced by a complicated network enclosing irregular spaces, filled in part with homogeneous granular particles (lymph), in part with blood. In the middle portions of the cutis, apparently following the line of a hair follicle, several large spaces filled with granular matter were noted, and in the adipose tissue of the hypoderm, similar spaces, some of enormous size, were seen (Fig. 6.) With a higher power, all the sub-epidermic spaces were found to be filled with either blood or lymph, those of the hypoderm contained regularly lymph—that is, homogeneous, fine granular matter, showing here and there a few shreds of fibrin and a few mononuclear lymph cells. The lining wall of these spaces consisted of a uniform unbroken layer of endothelial cells, with large, oval, prominent nuclei. The epidermis appeared normal, showing only the customary pressure changes; irregular, interpapillary proliferations at the edge of the tumor, considerable reduction in thickness here and there over the summit of the tumor. Hair follicles, sebaceous and coil glands appeared normal.

It is evident that this little tumor present for so many years in so exposed a region as the back of the neck, had been subject to frequent traumatism and for this reason was perhaps a less favorable object for histological study than some of the smaller and more recent lesions, all of which were examined, and all of which I may add, presented a similar cyst-like structure.

In examining the two lesions at the lower portion of the af-

fect area which clinically looked exactly alike, I was surprised to find that one contained lymph alone, and the other an admixture of blood. This fact is worth emphasizing because clinical deductions as to the contents of vesicular lesions are sometimes based on their color. The possibility of a hæmorrhage into the vesicle at the time of the operation, cannot be denied, but under the microscope, no evidence of the necessary trauma could be found, and the blood in the cavity did not look like perfectly fresh blood.

These lesions were found on section to be divided by septa into three or four irregular spaces which were separated from the flattened epidermis above by a thin layer of connective-tissue, in which occasionally a blood capillary could be seen. The dividing septa were in some instances of sufficient thickness to disclose a thin layer of connective-tissue between the endothelial cells on either side. Spur-like projections from the walls into the cavity in some instances represented a torn remnant of a septum, but not all the projections were of this character. In Fig. 2 is shown a long, thin, solid prolongation from the wall of the cavity made up entirely of endothelial cells; and from different sections a diminishing chain of such endothelial proliferations may be constructed, showing their origin in a small accumulation of endothelial cells on the cavity wall. These solid endothelial proliferations show in some instances evidences of canalization, and I presume that in this way new cavities may be formed within the old. The walls of the cysts in general are fairly regular in contour, but here and there a massive, round, oval, or club-shaped protuberance of connective tissue with a covering of endothelium (Fig. 3) projects into the cavity. The examination of many sections was necessary before the connection of these spaces with deeper structures was apparent. In Figs. 3 and 4, a small lymphatic is seen leading through a funnel-shaped passage from the cutis into the widened cavity in the papillary region.

Examination of the round white papular lesions described above showed them to differ in no important essential from the others, except that their contents disclosed the presence of a coarse meshwork of fibrin. I judge that the fluid contents of these vesicles had for some reason become shut off from the circulation and had coagulated *intra vitam*.

In addition to the lesions clinically apparent, examination of the sections showed at several points in the papillary layer, small lymphatic spaces which represent an early stage in the development

of the disease. They appear as irregularly oval spaces, extending from the subpapillary layer to the upper portion of papilla. In some cases a small lymph vessel may be seen leading downward from the base of the vesicle. Figs. 4 and 5 represent these early stages of the vesicle. A number of these small cavities in adjacent papillæ would produce the picture of the multiseptal cavity of the advanced lesion, and by rupture of the septa make large cavities. What I am inclined to regard as the earliest stage in the development of this process is shown in Fig. 5. We see here in the upper part of a papilla on a level with the summit of the hæmo-capillary loop a slight increase in the number of endothelial cells lying in the midst of perivascular tissue distinctly œdematous. If I correctly interpret this picture, it solves one important problem in the pathogenesis of lymphangioma.

The evidence that we are dealing in the condition above described with a lymphangioma, a true new formation of lymph vessels rather than with a lymphangiectasis is based mainly on two considerations. First, the endothelial layer of the lining wall is uniform, compact, and with prominent nuclei, whereas in a condition of simple dilatation we should expect to find the endothelial cells scattered, thinned, and with compressed nuclei. In addition we have the striking evidence of endothelial proliferation in the villous formations that spring from the endothelial lining of the cavities. Secondly, we find these lymph cavities at the very apex of the papillæ directly under the epidermic layer—a region in which normally no lymph vessels occur. The considerable number of large lymph channels in the hypoderm also points to a new formation of lymph vessels because normally these structures are absent, or but of rare occurrence in the subcutaneous fat.

The question of the etiology of these tumors has been the occasion of considerable discussion. In view of their history, it is evident that their primary cause must be sought in some congenital vice of the tissues. But their further development involves some questions which, in the present incomplete state of our knowledge of the physiology of the lymphatic system, are difficult to answer. Whence comes the pressure sufficient to distend with lymph the new-formed spaces? We know that even ligation of a lymphatic vessel will produce neither lymphangiectasis nor even œdema. An obstacle therefore to the lymphatic flow of the affected area will not alone suffice to establish the required pressure. Unna assumes therefore, the simultaneous occurrence of lymphatic and venous stasis as a pre-

liminary to the abnormal congenital tendency to proliferation of the endo and perithelium. Török, Freudweiler, and Waelsch, on the other hand, assume a primary new formation of lymph vessels with subsequent dilatation.

As to the origin of the newformed lymph vessels, writers differ. Freudweiler looks upon endothelial proliferation from existing vessels as the sole foundation for the newformed lymph vessels, while Török and Waelsch favor a heteroplastic process. According to them, the newformed endothelial elements serve either directly or through secondary inflammatory changes to develop a local obstruction to the lymph flow sufficient to produce the pressure required to dilate the newformed lymph spaces. In favor of this view it must be said that it rests to some extent on objective facts which its authors have demonstrated. There is, however, so much to be said in favor of Unna's theory, that I should be inclined to accept it at least for the first congenital origin of the process, while the process once inaugurated may, I can readily understand, be continued in the manner assumed by Török, Waelsch, etc. Darier thinks we should look for the seat of obstruction in the lymph nodes. On the basis of my sections, I am inclined to the view that a deep-lying obstruction, be it lymphatic or conjoint venous and lymphatic, is the first event in the chain that results in the formation of lymphangioma. A dilatation of the deeper lymphatics follows; probably some new vessels are formed in this region. In the papillæ the process begins with a separation of the perivascular connective-tissue cells, at the apex of the papilla and then into this region of widened lymph spaces the lymphatic, which normally extends into the papilla only to about one-third its height, proliferates. As the new formed lymphatic is developed in œdematous tissue, a region of diminished external pressure it easily assumes the enlarged ampullar and varicose forms we find in the sections.

CASE 2. Native American girl, six years of age, only child of German parents, well developed for her age, and in good health. The mother noticed a small group of "water blisters" on the side of the thorax when the child was a few months old. The lesions have greatly increased in number since then and have undergone changes from time to time, which will be referred to later.

The region affected lies on the right side of the thorax, in the axillary space between the sixth and the eighth rib, and has an extreme diameter of about eight cm. Inspection shows this area to be dotted over and more or less covered with isolated vesicles and

groups of vesicles. The isolated vesicles are for the most part of a transparent hue, from one to two mm. in diameter, with perhaps half a mm. of elevation, and show in a few instances, punctate or linear hæmorrhagic markings. The groups of vesicular lesions may be divided into (1), a light fawn colored area about two by three cm., closely packed with extremely minute vesicular lesions; (2) an irregular area of somewhat larger vesicular structures in a brownish-gray area of skin. One of these vesicles when pricked, exuded a droplet of clear lymph. (3) a mottled bright red tract about one by two cm., elevated a little less than two mm. above the surrounding niveau, with an irregular surface suggesting the appearance of a flattened raspberry; (4) about a dozen groups from two to ten mm. in diameter, in appearance resembling the tract last described, but having a dark blue-black color. The largest of these lesions when last seen was exuding a little blood in consequence of a slight injury. When viewed in profile, the entire region occupied by these lesions was seen to be elevated to an extent of about two cm. above the normal contour of the side of the thorax and on palpation an irregularly compressible, doughy, vermicular tumor with uncertain borders was felt below the skin.

I have referred to changes that have taken place from time to time in the condition described. Beside the occurrence of new lesions, vesicles and groups of vesicles would suddenly assume a hæmorrhagic appearance, remain bright red for a short period, some take on a blue-black hue, and then gradually in the course of six or eight weeks regain their former clear vesicular appearance. These hæmorrhagic changes occurred sometimes independently and sometimes seemed to be associated with changes in the deep-lying tumor. At irregular periods, two or three times a year, the mass in the hypoderm became hard, prominent, and tender on pressure. At these periodic attacks, lasting from one to two weeks, the child's general health appeared in no way disturbed and the color of the skin over the tumor was not altered, but the attacks were usually accompanied by an access of hæmorrhages into the vesicles, during which a large number of the latter took on a bright red color, and were often followed by a new crop of clear vesicles.

I expect sometime to extirpate the entire affected region and look forward with interest to the microscopic examination; but in the meanwhile, the clinical appearances seem sufficiently characteristic to warrant a diagnosis of lymphangioma superficiale associated with a

lymphangiomatous or possibly a hæmato-lymphangiomatous varix of the hypoderm. A strikingly similar case was recently shown at the Dermatological Society of Great Britain by Dr. Pernet.

A word about the periodic reactionary changes noted in this case. It is well known that erysipelatous inflammations are of frequent occurrence in the lymphangiectatic and œdematous conditions of elephantiasis. In these conditions the recurrent attacks of erysipelas are regarded both as a contributory cause of the elephantiasis as well as a natural consequence of the reduced tissue resistance of that state. In some of the cases of lymphangioma circumscriptum, there is a history of repeated erysipelatous inflammation. Now while one can understand that in a condition like lymphangioma in which the contents of a ruptured vesicle constitute a perfect nutrient medium, streptococcus or other infection may readily occur, as a matter of fact the accounts given rarely establish an unquestionable diagnosis of erysipelas. There is never, for instance, any extension of the inflammation beyond the area of the lymphangioma. In a case described by Dr. A. R. Robinson² at a meeting of this Association in 1895, as a hæmato-lymphangioma of the neck, present since birth, with new lesions forming from time to time, in a young woman of twenty-seven, the patient stated that the lesions swelled and became red from filling up with blood at each menstrual period. In a case recently published by Hallopeau,³ as a lymphangiomatoid nævus in a man, the patient was subject to recurrent attacks of local inflammation accompanied by fever. In one of these attacks Hallopeau demonstrated the occurrence of minute abscesses, the result of infection with staphylococcus aureus. We have here then three different types of local reaction in cases of circumscribed lymphangioma—the purulent infection of Hallopeau, the turgescence associated with the menstrual molimen of Robinson, and the type described in my own case, of unknown origin, possibly dependent, I would suggest, on the occurrence of thrombosis in the subjacent varix.

² JOUR. CUT. AND G.-U. DIS., xiii., p. 476.

³ Ikonographia dermatologica, No. 1.

DESCRIPTION OF PLATES.

Pl. XXXVIII. Fig. 1. Large raised warty-looking lesion. Low power.

Fig. 2. Showing endothelial proliferation from wall of cavity.

Pl. XXXIX. Fig. 3. Showing cavity partly filled with blood. Solid connective-tissue projections into cavity with a small lymphatic vessel connecting with the cavity.

Fig. 4. Showing small lymphatics leading into two cavities. This photograph almost exactly reproduces some of Török's pictures.

Pl. XL. Fig. 5. To the left a small cavity to the right an œdematous area opposite the summit of the capillary loop. Earliest stage in formation of lymph cavity.

Fig. 6. Enormously enlarged lymph vessel in the subcutaneous fat; small lymphatic leading into it on the left.

DISCUSSION.

Dr. JAMES C. WHITE said we could scarcely accept the statement of the French writers as to the infrequent occurrence of this disease, as they were very prone to limit their references to their own literature. Personally, the speaker said, he had reported two cases of lymphangioma circumscriptum, with accompanying dermatitis. In one of the cases, which was under his observation for many years, the lesions involved an area six or seven or eight inches in diameter on the thorax, and there were repeated attacks of dermatitis which far exceeded the actual dimensions of the affected area. There were also frequent hæmorrhages into the groups of apparently vesicular lesions.

In a case of this affection recently seen in Boston, the lesion was situated on the toe, surrounding the margin of the nail. He had never before seen that location involved.

Dr. THOMAS C. GILCHRIST said that about nine or ten years ago he reported a case of lymphangioma circumscriptum occurring in a girl of twelve. The lesion was about four and a half by eight inches in diameter and occupied the outer surface of the thigh. The history of that case was published in the Johns Hopkins Bulletin. There were hæmorrhagic lesions, but no erysipelatous attacks. The skin lesion in this case had followed an injury to the thigh. It was excised and did not return. The histological examination of the specimen showed that the lesion had its origin in the follicles of the lymphatics, and seemed to bear out Dr. Pollitzer's statement that the condition was due to an obstruction to the lymphatic supply. Numerous hæmorrhagic lesions were also present.

In another case mentioned by Dr. Gilchrist, the patient was a child of thirteen or fourteen, the lesion being situated on the side of the neck. It was non-inflammatory in character; there was no history of syphilis; no attacks of erysipelas nor dermatitis. The lesion seemed to be due to an obstruction to the lymphatic supply in that region.

Dr. WILLIAM T. CORLETT said that at the meeting of the Association in Princeton about seven years ago, he reported two cases, one of lymphangioma circumscriptum, and the other of linear nævus. In the latter case the pathological examination showed an apparent obstruction and dilatation of the lymphatic vessels. The other was a well-developed typical example of lymphangioma circumscriptum, non-inflammatory in type. The patient was still alive and apparently in excellent health.

Dr. CHARLES J. WHITE said he could recall at least four cases of

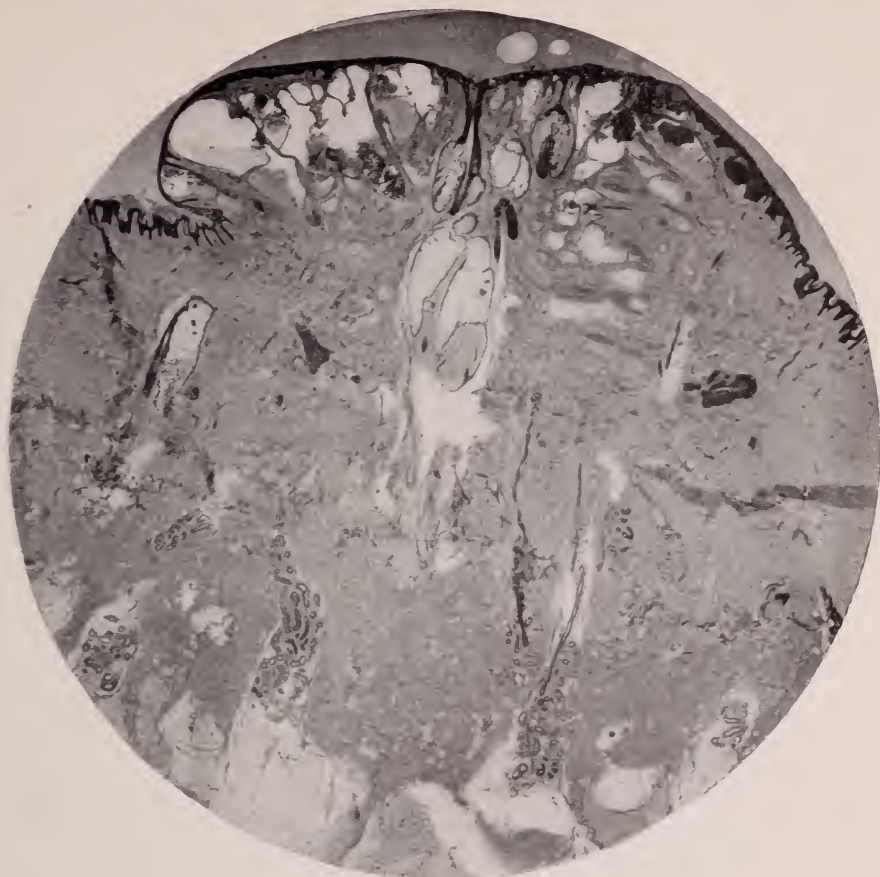


Fig. 1.

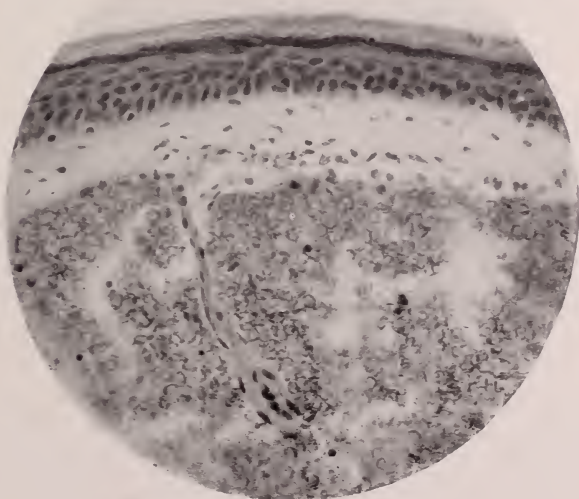


Fig. 2.

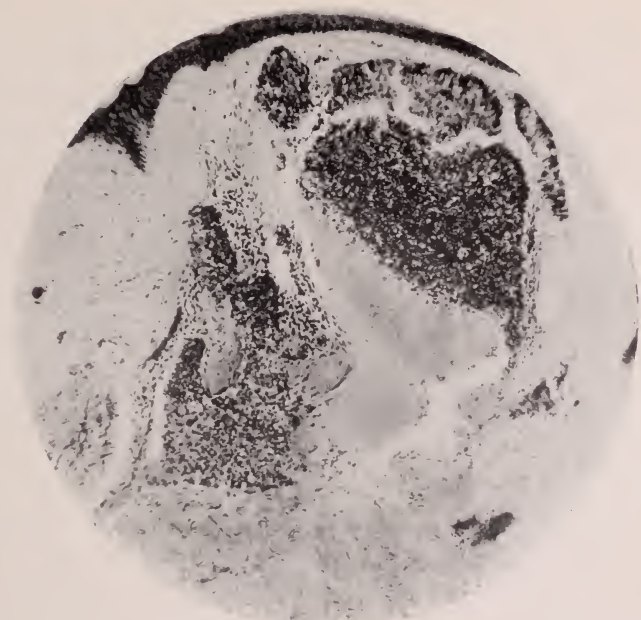


Fig. 3.

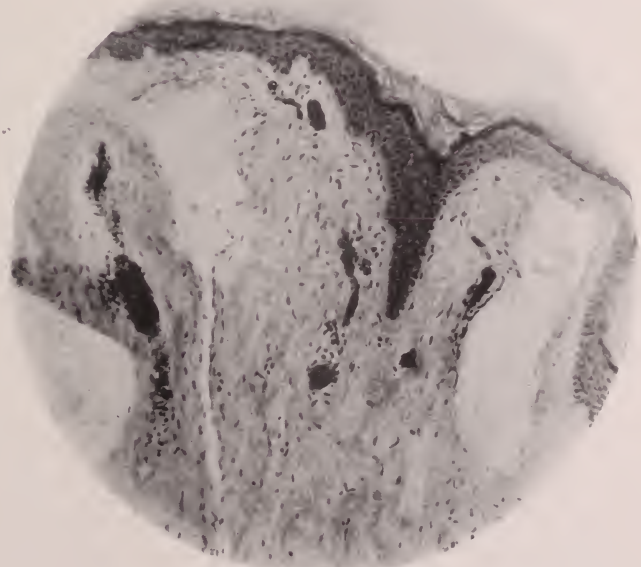


Fig. 4.

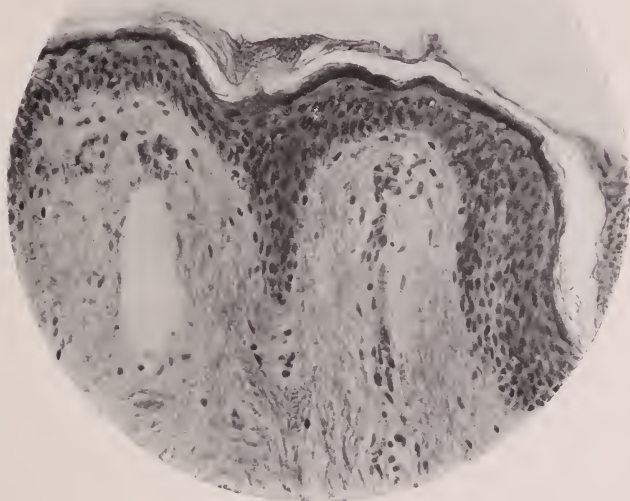


Fig. 5.

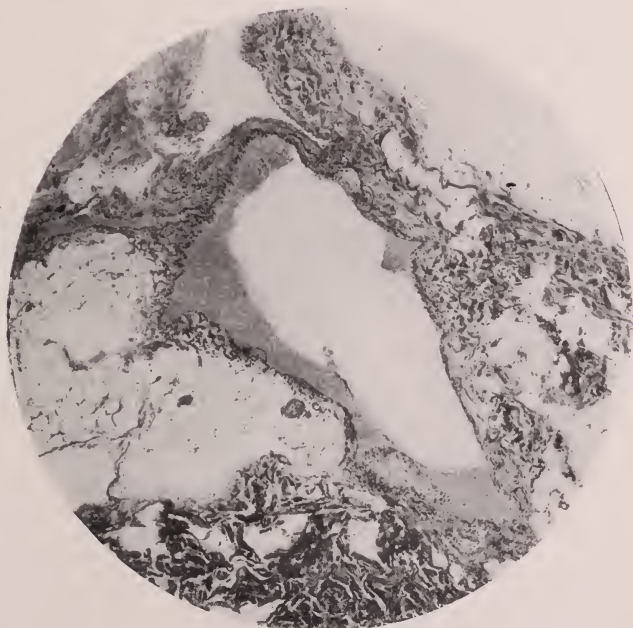


Fig. 6.

lymphangioma circumscriptum, and did not regard it as a rare disease. The most remarkable case he had seen was in the skin ward of the Massachusetts General Hospital. The patient was a woman who had been troubled for some months with a great flow of straw-colored lymph from an abdominal wound, which had been made by a surgeon who had opened the abdomen for exploratory purposes; the surgeon came down upon a large mass, and thereupon had closed the wound, and had given a hopeless prognosis. The lesion for which the operation had been done, was a typical lymphangioma circumscriptum, and the discharge from the wound was so free that a bath towel would become soaked with lymphatic fluid in the course of a few hours. Under cauterization, the flow largely ceased.

Dr. M. B. HARTZELL said he quite agreed with Dr. White regarding the comparative frequency of this disease. A number of such cases had come under his observation, and some years ago he had reported a case before this Association, in which the lesion appeared over the scapula. Since then the patch had been gradually creeping up toward the shoulder. The speaker said he thought most of these cases might be designated hæmolympangioma, as there was a collection of blood vessels in most of the lesions.

Dr. POLLITZER, in closing, said he was sorry that the histopathology of the condition had received so little attention in the discussion. As regarded the classification, the speaker said that at least two types had to be distinguished clinically, namely, the superficial lymphangioma, and the lymphangioma that was associated with a process in the deeper tissues. We should distinguish very sharply between the small vesicles that occurred in these lesions and the groups of vesicles that sometimes were observed in connection with elephantiastic processes, and were usually examples of simple lymphangiectasis. Many cases of both varieties of vesicles were collected some years ago by a former honored member of this Association, the late Dr. S. C. Busey of Washington, D. C., in a book in which he recorded about a hundred cases showing the effect of lymphatic obstruction.

A CONTRIBUTION TO THE HISTO-PATHOLOGY AND THE THEORY OF DRUG ERUPTIONS.

By Dr. M. F. ENGMAN and Dr. W. H. MOOK, St. Louis.

From the Laboratory of the St. Louis Skin and Cancer Hospital.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

THE major part of the material for this work was obtained some years ago at the St. Louis Almshouse, through the courtesy of Dr. Kuntz. To this institution the overflow from the St. Louis Insane Asylum is transferred; the patients consisting mostly of epileptics, imbeciles, cases of dementia, chorea and other chronic nervous affections. At that time in this institution the administration of the iodides and the bromides, was more or less of a routine procedure, therefore it was easy to increase the dose of these drugs in certain selected cases, until a distinct drug eruption was produced. We were thus enabled to control our experiments and to obtain from these cases material for histological examination. At the time of beginning our observations, there occurred in this institution a case of the anthracoid variety of iodide of potash eruption, upon the back of one of the inmates, who had been taking large doses of the drug for some time. From this marked, case down to the smallest erythematous spot, including papules and pustules, histological material was obtained from both iodide and bromide reactions.

Since working at the Almshouse, other material has been obtained from patients in public and private work. As a preliminary to the histologic part of our paper, we might state the following clinical facts observed by us.

In the first place, it was noticed that when an iodide or bromide eruption was induced, the most marked effect occurred upon points previously inflamed; for example, the increase of inflammatory symptoms in an old acne lesion or in an old ulcer. To prove this, small areas of skin in these cases were irritated by blisters or traumata, which seemed to attract to that point the objective phenomena of the drug eruption. As iodine and bromine produce similar erup-

tions and in this respect stand in a class by themselves, for this reason we only worked with these two chemicals.

In the pus of the iodide lesions we were able to demonstrate in every instance iodine. The lesions produced by bromide were not satisfactorily investigated for bromine, on account of the difficulty in obtaining a chemical reaction. For the purpose of demonstrating the fact that iodine occurred in chemical combination in all the tissues of the body, skin free from any symptoms of iodide eruption was blistered, in two cases, and the serum from these blisters investigated for the presence of iodine. In each instance iodine was readily discovered.

Bacteriological investigation of the pus from eleven cases of iodine and bromine eruption, failed to discover microorganisms except in one case. These cultures were very carefully taken, only the pus from the deeper portion of the unbroken lesions being used. It seems to us it is very necessary in taking such cultures, that the skin should be thoroughly sterilized and the pus from the top of the lesion evacuated before the culture is made. By this procedure there is no danger of secondary contamination. In the anthracoid case there were open ulcers which discharged pus freely, but, surprisingly, cultures made from any part of the lesions did not reveal microorganisms. From the quantity of iodine which seemed to be present in the pus in the latter case, it would have been exceedingly difficult for organisms to propagate.

Histo-pathology—We will not take your time to-day by giving you a detailed description of the histology of the various iodine and bromine lesions investigated by us, as we feel that this subject, in a general way, has been thoroughly discussed by others and that you are, no doubt, familiar with it. As has already been mentioned, lesions in the various stages of development, from the smallest pre-papulopustular stage to the large anthracoid variety, were included in our material. The tissues were all fixed and hardened in alcohol, cut and mounted in celloidin, and stained by various methods. It is impossible to differentiate histologically as well as clinically between iodide and the bromide lesions. They produce an almost identical histological picture, differing only, possibly, very slightly in the finer technical details. When a section from either of these lesions is observed with a low power, the impression of a dermatitis is at once conveyed. The epidermis is thickened, produced by intercellular and intracellular œdema. There is some irritation of the epidermis, as here and there are seen evidences of mitosis. The

thickening of the epidermis is, however, chiefly produced by the œdema. Coursing through the cutis are large cellular cords, dilated blood vessels. The collagen is swollen and the areas of irritation have a hyalin or glazed appearance. The connective tissue cells are increased throughout the cutis. About the follicles and glands, on account of the increase of cells about their vessels, one sees a dense mass of newly formed cells. Deep in the cutis, and sometimes more superficially, we see dense groups of cells, the beginning of an abscess. These dense groups of cells may occur about a gland or follicle, or may be in no relation to them, as they often occur free in the center of the corium. In none of our sections does the elastic tissue seem to be affected except in the areas of abscess formation. One can readily see upon observation with the low power, that the point of interest in this study is about the vessels. For this purpose it was found best to begin the study of the vessels in the smallest lesion obtainable, which was a bromide lesion just approaching the papulo-pustular stage. In these sections (Fig. 1) near the center of the derma was found a large mass of cells, the beginning of abscess formation. With the oil immersion, the vessels away from the periphery of the abscess, presented the following appearance: they were dilated, filled with leucocytes, and about them was an increase of connective tissue cells, which seemed to be more pronounced upon one side of the vessel. This we might designate as the first stage of the pathological change. (Fig. 3.) Later, as we approach nearer the abscess formation there is added to this marked increase of new connective tissue cells, the first appearance of small, round cells, containing a large nucleus, peripherally dotted with fine granules, having somewhat the appearance of lymphoid cells. This is undoubtedly the second stage in the production of the lesion. (Fig. 4.)

As we approach still nearer to the abscess formation, we have a relative increase of the lymphoid-like cells, until we arrive at the vessels, which appear as dense cellular cords under the low power; the infiltration about them being composed of new connective tissue cells and lymphoid-like cells and polymorphonuclear leucocytes. The increase of these cellular elements may occur in any portion of the derma until a dense mass of them is formed, when the collagen takes on a glassy, rigid appearance and polymorphonuclear leucocytes are added to the cellular elements; the collagen then becomes granular; the fixed connective tissue cells become vacuolated, forming the so-called *cellules écumeuses* (the Schaumzellen of Unna) to which Pasini refers in his study of bromide eruptions.¹ (Pasini thinks these cells

¹ *Ann. de Derm. et de Syph.*, January, 1906.

become phagocytic but in none of our sections could we verify this fact.) These vacuolated, fixed connective tissue cells, as we reach the abscess, degenerate into granular debris. As the cellular elements about the vessels increase, the change mentioned in the collagen takes place, polymorphonuclear leucocytes are attracted in increasing quantities from the vessels, local nutrition is interfered with and an abscess is formed. The abscess enlarges by the continuation of the same process at its periphery. As the abscess increases in size, the epidermis is flattened out, the structures between it and the abscess are gradually dissolved, the epidermis loses its intrapapular rete pegs, the epidermic cells become flattened until they are finally destroyed by the advancing abscess.

The small abscess, are therefore composed of the fixed tissue cells and the new-formed cells and leucocytes, which make up the dense cellular masses seen about the vessels. Histologically, they were also found free of organisms. The epithelia of the coil glands, when the formation of new cells about them seems to interfere with their proper nutrition, show signs of degeneration, and also those of the sebaceous glands and the hair follicles. Histologically the changes in the glands and follicles of the skin were found to be dependent entirely upon the amount of infiltration occurring in the vessels about them; and as in many instances marked degeneration was progressing in certain portions of the section, while the glands and follicles were comparatively free, it proved to us that there could not be any direct relationship between the excretion of the drug by the glands and the objective symptoms of the eruption. When a healthy gland is affected it is merely an accident of location and suffers as any other portion of the skin may suffer from the pathologic changes induced by the drug. The theory that iodide and bromide eruptions are produced by an injury to the glands by the excretion of the drug has been pretty well exploded. The study of our sections proved to us conclusively that this is never the fact unless the gland be previously diseased. We may reiterate that when a gland or follicle is involved, it is not due to the effect of the drug upon the gland or follicle itself, but to the formation there of inflammatory changes, first induced about the vessels, and affecting in this way the gland indirectly. In fact, the epithelium is nowhere affected except through secondary changes, as one may see in any dermatitis produced by many agents: the epidermis itself presenting only these accidental changes. Iodine and bromine do not seem to

have any selective effect upon the tissues, unless it be the production of new connective tissue cells and a local lymphocytosis. A few mast cells could be seen, as in any other inflammatory condition, but no true plasma cells. It seemed to us in a close study of these sections compared with others, that there were more *Schaumzellen* than usually seen in inflammatory areas. They were large, beautifully vacuolated and of great frequency in the upper portion of the cutis. The changes in the vessels seemed to be entirely perivascular. The increase in the connective tissue cells about a capillary is very well demonstrated in the first stages in figure 3, and in its more advanced stages in figure 4.

Producing no specific histologic changes except, possibly, the formation of new connective tissue cells and a local lymphocytosis, and with no relation between the eruption and glandular excretory action, what then is the cause of the production of these eruptions? In the first place, iodine and bromine, we might say, are drugs of standard values in the production of eruptions. We can produce an eruption in any individual, provided a sufficiently large and continuous dosage is carried on. The pathological effects may occur in the form of various types of eruptions as we well know, but the papule and pustule are the most frequent. When one is taking iodine or bromine, the drug can be detected in all the tissues of the body, and if its administration be sufficiently prolonged, all of the vessels of the body will have an increase of connective tissue cells about them, and possibly the appearance of the small round cells described. In pieces of normal skin from patients taking potassium iodide we found this to be the fact. Therefore we have from these findings the histological material ready at any time for the production of an eruption. This eruption, it has been our experience, makes its first appearance about the sites of previous irritation, the seborrheic areas, the acne areas, areas of trauma, just as we see the same thing occur in the eruption of smallpox, syphilis and various other disorders due to general toxicosis, the first local appearance being determined at the site of previous points of pressure or irritation. All are familiar with the suspender eruption of smallpox and syphilis, with the plaster eruption of scarlet fever and measles and numerous other examples. It seems to us that in iodermia and bromodermia, we have a drug circulating in the body tissues which under certain conditions, acts as a toxin, causing at points of local disturbance, all of the symptoms of an inflammation, this

inflammation not differing essentially from that produced by other toxic agents.

It may be possible that when a certain state is reached within the tissues a condition of unstable equilibrium between the iodine and the tissue ensues, the chemical action is disturbed, toxic products are formed, and we have at this point the production of certain local pathological phenomena. This condition of unstable or abnormal chemical reaction may be produced by previous local conditions, in the form of previous local inflammation, and we have then super-induced upon the acne or whatever the previous inflammatory condition may have been, a secondary process in the form of a bromide or an iodide lesion. (Fig. 2.) The previous local inflammation may be microscopic, yet sufficient to disturb the normal chemical reaction at this point between the tissues and the drug.

This point one of us called attention to in an article upon "Some complications of syphilis of the skin and their treatment," in 1901.² The trend of the remarks referred to, was that we can have—and it is often seen—a severe pathological process superimposed upon a syphilitic eruption by the over-administration of iodine, which is signified in certain cases by the severe and rapid increase of the local symptoms with fungoid or vegetating lesions. This, no doubt, many of us have had in our own experience.

Harrison³ uniquely illustrates the fact under discussion. He describes a boy who had been taking bromide when a bromide eruption was produced upon the leg following a kick.

Lavoisier⁴ takes advantage of this fact of iodine seeking inflammatory areas, in the treatment of acne. He gives iodide of potash until the acne lesions are markedly affected through the administration of the drug, when he ceases the administration of the iodide and allows the inflammation then to subside. Excellent results are reported by him by thus substituting one inflammatory condition for another. The affinity of iodine for areas previously undergoing inflammatory changes and its local production in these areas of a lymphocytosis, leucocytosis and reactive inflammatory change, may explain its specific powers in dissolving plasma cell infiltration in syphilis, in producing the iodine laryngitis in smokers and coryza in catarrhal subjects.

Résumé—The results of our observations upon iodine and bromine eruptions may be concisely stated as follows:

² *St. Louis Med. Review*, August 17, 1901.

³ *Brit. Journal of Dermat.*, 1901, p. 178.

⁴ *Medical Record*, November 11, 1899, p. 700.

1. The local eruptive phenomena are prone to occur at points of previous inflammation; about comedoes, acne lesions, seborrhoeic lesions, scars, traumata, scratches, etc.

2. Traumata, pressure, quick changes of temperature may precipitate an eruption in tissues charged with the drug.

3. Idiosyncrasy or susceptibility may be admitted as it is in other toxic conditions.

4. The glands or follicles of the skin take no active or specific part in the production of the lesions, and when they are involved, it is secondary and passive to inflammatory changes about the vessels and in the connective tissue.

5. The gross histological changes in the skin consist in different degrees of inflammation, from slight changes about the vessels to destructive abscess formation and progressive death of tissue.

6. The minute histological changes or steps to this end may be classed in the following stages: First, increase of connective-tissue cells about the vessels. Second, appearance of lymphoid-like cells about the vessels. Third, addition to these cells of trifold leucocytes with granular appearance of collagen and vacuolation of fixed connective tissue cells. Fourth, local increase of all these phenomena and the formation of an abscess.

7. The first and second conditions are found in the normal skin with iodide eruption.

8. The stages three and four, or the addition of leucocytes and degenerative changes, is induced by local disturbance of the normal equilibrium between the iodine combined in the serum and the tissues.

9. This disturbance of equilibrium may be induced by various factors, and when it does occur the resultant product acts as a toxin, which in its turn causes tissue irritation and the production of various local inflammatory symptoms, the type of symptoms and the eruption being dependent upon the character of the individual's reaction to the inflammation thus produced, as in any other toxic condition.

10. This theory may be termed the "Rational theory," as it explains all the symptoms of iododerma and bromoderma in a purely rational, chemical and mechanical manner and does not depend in its elucidation upon the mysterious or purely theoretical action of the vaso-motor system.



Fig. 2.

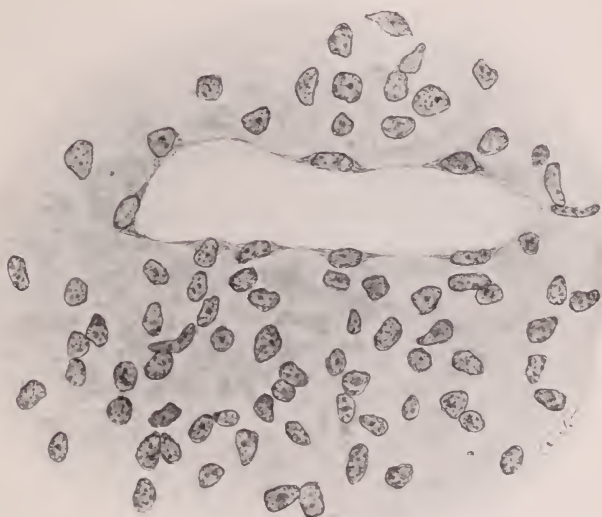


Fig. 3.

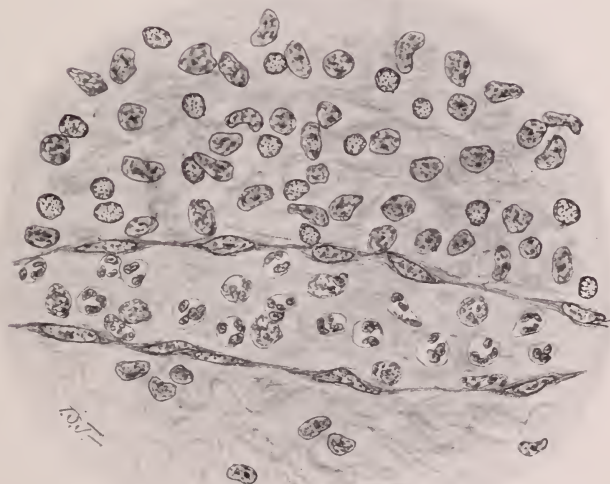


Fig. 4.



Fig. 5.

DESCRIPTION OF PLATES.

- Pl. XL. Fig. 1. (a) The beginning of an abscess formation. (b) Dilated vessels showing increase of cells about them.
- Pl. XLII. Fig. 2. Old acne cyst showing the new inflammatory reaction induced by the administration of iodide of potash. (a) Cyst. (b) Dilated vessels with increase of infiltration about them. (c) Hair follicle. (d) Horny plug.
- Pl. XLIII. Fig. 3. Dilated capillary showing first stage of inflammatory changes, viz.: increase of connective tissue cells and a few lymphocytes.
- Fig. 4. Dilated capillary showing a later stage of the process, viz.: increase of connective tissue cells and lymphocytes with engorgement of polyneuclear cells in vessel.
- Pl. XLIV. Fig. 5. Anthracoid iodide eruption.

DISCUSSION.

Dr. JAY F. SCHAMBERG expressed great admiration for the excellence of the paper of Drs. Engman and Mook, and for the elucidation of certain important points. He was particularly interested in that phase of the subject which attributed the localization of various clinical lesions to areas of previously existing trauma or increased vascularity. This theory was not only plausible, but was confirmed by clinical facts in connection with certain other diseases. For example, in smallpox, an increase in the vascularity of any area of the skin will almost invariably determine the presence of an increased number of lesions in that area. A mustard plaster applied to relieve the backache of smallpox will usually mark the site of a subsequent confluent eruption. In scarlet fever, Dr. Schamberg said, the converse of this rule was true as the areas where continuous pressure had been exerted, as the garter regions, were usually free of the eruption.

Dr. ENGMAN, in closing, showed a drawing which he offered as a unique illustration of the point of the paper. The section was from an old cystic acne lesion from the back of an insane patient, who had been taking potassium iodide. For many years, Dr. Engman said, he had held this theory in regard to iodide and bromide eruptions, and he had had many excellent opportunities for working it out. He did not know whether the idea had been suggested by anyone else, but it certainly offered a very plausible explanation for these eruptions.

NOTES OF A CASE OF ACTINOMYCOSIS.

By JOSEPH ZEISLER, M. D., Chicago.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

IT would seem presumptuous to make the narration of a single observation of a well known disease the excuse for an extended review of the literature or a reiteration of interesting, yet familiar pathological data. Neither is here intended. Cases of actinomycosis are, however, sufficiently rare in the practice of the dermatologist, to make each of them a sort of event. Also, the desire to emphasize the peculiar pathogenesis as well as some therapeutical points, prompted the publication of the following brief record:

CASE. On the 28th day of September, 1905, there presented herself in my office, a young lady, Miss M. M., twenty-four years old, her face bandaged, and in great anxiety over her condition, which for about six weeks had persisted in spite of the treatment by a practitioner in a small country town of Illinois. She attributed her ailment to the fact that during the past summer, while playing golf, she had fallen into the habit of chewing freshly plucked grass. She well remembered that on one occasion a particle of grain had become lodged underneath her tongue, causing a slight irritation, to which, however, she gave little heed at the time. Gradually there developed a somewhat painful and continuously increasing swelling in the submental region which caused her to seek professional advice in the little country town where she was summering. The swelling had been lanced twice, but it continued to spread.

Status præsens—Local inspection revealed a rather diffused, dense, immovable swelling, involving the submental region from one angle of the jaw to the other, reaching downward to the head of the larynx, and rather firmly seated against the submaxillary bone, which at its borders appeared slightly thickened. The surface appeared of a dark red color and showed the two retracted scars from the recent incisions. There could be noticed several protuberances, still firm but evidently about to form abscesses. Palpation of the sublingual tissues revealed no extension of the process to the floor of the mouth. Neither the cervical nor the supraclavicular glands were found enlarged. There was a fetid odor from the mouth, of which the patient was painfully conscious. Temperature, 100.6.

Diagnosis—The history of the case and the whole clinical picture, strongly suggested an infection by actinomyces. On the next

day I had the privilege of the opinion of Dr. J. B. Murphy, who, as is well known, was the first in this country to observe and record an instance of actinomycosis in man. He fully concurred in my views as to the diagnosis and the treatment contemplated. After four days a definite and conclusive evidence as to the nature of the affection was furnished by the examination of the pus from an abscess that had then formed. The pus had a very offensive odor and showed distinctly small grayish-yellow translucent roundish particles, which, under the microscope, proved to consist of the characteristic ray fungi. The pus contained besides staphylococci and streptococci and a few saprophytic bacilli.

Treatment—Kalium jodatum was prescribed for internal use in doses of one gramme three times daily, to be gradually increased. Locally, hot fomentations were ordered in daytime to favor the softening of the indurated mass; at night a salve containing one per cent. of pure iodine, and ten per cent. of iodide of potassium, which was soon changed to a strong ichthyol ointment. Also, X-ray exposures of moderate strength were at once resorted to and kept up for the next four weeks. The openings of the three abscesses which formed during the first two weeks of the treatment were made as minute as possible, for cosmetic reasons. They were just large enough to permit of free drainage and the injection of diluted tincture of iodine.

Further Course—The temperature remained above normal during the first 16 to 18 days of treatment, never rising above 102° , but always above 99.6 , still with a gradual tendency towards the normal figure as the pus formation ceased.

The use of the iodide of potassium, which had been started with the confidence based upon its general recommendation, was not well borne by the patient, whose digestive organs proved very delicate and refractive against it. The acne lesions, also, produced upon face and shoulders were rather unwelcome. In personal conversation with Dr. A. D. Bevan, I learned at that time of his experiments upon the treatment of both actinomycosis and blastomycosis by the internal administration of sulphate of copper. Bevan has since published his observations in the *Journal A. Med. Ass'n.*, of November 11, 1905. I was glad to act upon the suggestion offered, giving quarter-grain doses three or four times daily in capsules, which were well borne. How much of the improvement in my case was due to it, would be impossible to analyze, as other measures were employed at the same time. But mere chronological observation of my case shows, that

the formation of abscesses ceased and the gradual softening of the hardened tissues coincided with the use of the copper salt together with the more regular use of X-ray exposures.

In regard to the latter, it occurs to me that Heidingsfeld in reporting a case of actinomycosis (*Cinc. Lancet Clinic*, March 28, 1903), mentions the harmful effect of their use in his case, before he himself began to take care of it. His report shows, however, that the rays had evidently been employed by inexperienced operators; and while his arraignment of the abuse of X-rays seems justified, I must state from the experience in my own case, that I attribute a great deal of benefit to them, especially the total disappearance of all infiltrates and the thickening of the jaw.

By the end of October, my patient could be pronounced as cured, at least pro tempore. Further observation up to date has shown no recurrence.

There is little to add in the epicrisis of the case.

One point seems to me to deserve wider publicity through the medium of the medical profession, namely the mode of infection through the chewing of grass while golfing. I am aware that I am not the first to call attention to this. Some ten months ago in my reading, I ran across a review of a similar observation. To my great regret I have been unable to find the reference in spite of diligent search, and I trust the author of that article may forgive me for not giving him full credit. The great popularity of golfing and the well known inclination of so many Americans to chew something of some kind for a pastime, in this instance, grass, seems to involve the danger of an occasional infection.

In regard to the diagnosis it might be held that the case was not one of pure actinomycosis, as other pathogenic germs were also present, making it one of a mixed infection. In a very able article on this subject by Kieseritzky and Gerhardt (*Archiv f. clin. Chirurgie*, 1905, pp. 835 and ff.), entitled "Regarding Some Affections Presenting the Picture of Actinomycosis," the authors present valuable clinical and pathological material, which shows that some cases while presenting all well known clinical features and also containing radiating filaments closely resembling actinomyses, do not stand the finer tests of the laboratory. Whether my own case would therefore fall under their ban, I cannot now decide, having seen that paper too late to be on the guard against possible error.

As to the treatment I have little doubt but that the very favorable result in my case should be repeated in many others, provided the diagnosis can be established early enough.

HISTO-PATHOLOGY OF PARAFFIN PROSTHESIS.

By Dr. M. L. HEIDINGSFELD, Cincinnati, O.

Presented to Ninth Congress of the Deutsche Dermatologische Gesellschaft, Berne, September 14-18, 1906.

PARAFFIN prosthesis, although very generally and successfully employed at the present day, must still be regarded as a relatively new departure in the science and practice of medicine. Scarcely seven years have elapsed since Gersuny injected a quantity of 40° C. melting point, into each scrotum, as a substitute for testicles, which had been previously removed for tuberculous disease, in order to spare the young candidate for the army any embarrassment while undergoing the customary physical examination. Notwithstanding the immediate success and the apparent permanent character of result, which a typical elevation of temperature, to 40° C., equal to the melting point of the injected paraffin, did not materially affect, no further experiments were made by Gersuny until July, 1900, when a successful injection of paraffin was made in the vesical mucous membrane to remedy an incontinence of urine. Following the reports of its successful use in these two cases, paraffin, both in a therapeutic and experimental way, became very generally employed, its field of usefulness widely extended and its success firmly established. Kapsammer, Stern, Pfannenstiel, were the earliest to confirm the brilliant achievements of Gersuny; Juckuff and Prof. H. Meyer were among the earliest to report experimental investigations upon animals. For the first few years its use was limited chiefly to the correction of sphincter incontinence and hernias, and became gradually extended to the correction of cleft palate, atrophic rhinitis, the permanent separation of divided nerves, ankylosed joints, facial deformities, etc. A fair idea of its present generalized employment may be gleaned from the report of Eckstein who successfully used it in over 2000 cases, for deformities of the palate and face.

Matzenauer and a few others, have endeavored to show that paraffin has been employed by dentists for closing fistulæ in the oral cavity, before it was used by Gersuny for cosmetic purposes. This observation should rob Gersuny of no more priority than the mercurial injections in which paraffin-oil had been employed as a men-

strum for many years. A sufficient interval of time has already elapsed to permit some retrospective observations. Its success as a safe and universally employed therapeutic agent in cosmetic and plastic therapy seems sufficiently well established to require no special comment. A histologic study of some of the cases in which it has been employed for a sufficient interval of time to permit physiological and pathological changes, will probably be of some interest.

A recent editorial of the *New York Medical Record*, states that "a great deal has been written regarding its manifold advantages, but as yet we know comparatively little of the behavior of this substance after its introduction into the tissues. A better knowledge of this process is of great importance both for practical as well as for theoretical reasons."

Additional interest to histologic studies in this direction is afforded by the irritating character of paraffin upon the superficial tissues, and the well known and generally accepted tendency of the skin to undergo keratotic and epitheliomatous changes under its prolonged influence. It is highly probable that the physiological and pathological changes in paraffin prosthesis thus far consummated, are still incomplete and have not reached their greatest and fullest degree of developmental change. Juckoff's observations that the paraffin when injected into the tissues slowly disappears, by some process of oxidation, is of interest, but rather improbable. Of greater interest are the more recent studies of Prof. H. Meyer, who was able to confirm the disappearance of paraffin from areas into which it had been previously injected, either by a process of natural growth, diffusion by muscular action, or by direct gravitation along the lymph channels and component glands. In animals it reaches the inner cavities, and if administered in moderate doses, it may induce serious disturbance by blocking important channels, and even death. Eckstein in his investigations of more recent date, states that a distinct advantage is obtained by employing paraffin of 60 to 65 C. melting point, which becomes encysted and contains no formed elements.

Comstock reports that animals when injected with paraffin having a melting point below that of the temperature of the body, died in two weeks time of thrombosis; that paraffin is a substance which does not remain entirely encapsulated, but becomes a bridge work and a part of new tissue. Of great interest and value are the recent investigations of Kirschner on paraffin removed *in situ* from the tissues, for sundry causes, of varying character and duration. His investigations lead him to believe that cell invasion is readily per-

mitted by the crystalline¹ structure of paraffin, which undergoes absorption and disintegration by the action of giant cells and leucocytes. It becomes converted into a net-work of connective tissue, with remnants of paraffin surrounded by masses of giant cells. Entire absorption took place when soft paraffin was used. My personal investigations of a histologic nature cover two cases, which briefly reported, are as follows: Mrs. Z. C., aged twenty-seven years, came to my notice on July 29, 1905.

Her natural comely appearance and excellent features were disfigured by some unsightly lumps, situated beneath each eye, at the angles of the mouth, and behind each angle of the jaw and upper portion of the neck. These lumps which varied in size from a pea to a large English walnut, were firm, hard on pressure, adherent to the overlying skin, and deeply imbedded in the underlying tissue. Those at the angles of the mouth could be readily outlined through the buccal mucous membrane, and produced the same degree of irregular disfigurement and deformity of the mucous membrane of the mouth as that of the skin. She stated that for a period of almost six months, and one and one-half years prior to the date of her visit, she placed herself in the hands of one of Cincinnati's female beautifiers, or self-styled dermatologists, who by reason of the dereliction of the Ohio State Board of Medical Registration, are freely permitted to practice illegitimate medicine. The quack endeavored to make her more beautiful by filling out the natural hollows under the eyes, at the angles of the mouth, and the upper portion of the neck, with injections of paraffin. Following the disfiguring injection, which caused the patient an endless amount of embarrassment, mental anguish and distress, patient spent almost an entire year, seeking some remedy to overcome the disfigurement prior to the date of her first visit. In this I was partially successful by first incising the masses deeply to their center by means of a small narrow-bladed bistoury, and then expressing the contents by exerting pressure with the fingers. By this method the disfigurement was reduced fully one-half, and paraffin came forth in long thin ribbons, through the narrow incision. This procedure was successfully performed on July 29 and 30, August 20 and 26, September 7 and 8, November 11 and 12, and November 25, 1904, and with less success on February 16, April 5,

¹ My personal observation leads me to believe that the cell invasion is favored not by the crystalline structure of the paraffin, but by the method in which it is deposited in the tissue. When placed in the tissues, it emerges from the needle as a congealed substance, and the thread-like mass, instead of forming a perfectly rounded homogenous body, preserves interstices; of more favorable moment to cell invasion than crystalline structure.

June 16, and August 28, 1905. The same measures yielded no results on May 17, 1905, and on September 17 and on November 5, the most disfiguring areas were removed by free excision, and are the subject of the histologic report which follows.

Mrs. P. T., aged sixty-three years, was also a victim of one of these quack beautifiers, who injected some paraffin at the angles of the mouth to efface the annoying wrinkles of old age. The injected paraffin appeared above the surface of the skin in the form of a firm elongated yellowish red, glistening mass, closely adherent to the skin, and resembling a keloid in its gross appearance. The mass had been injected almost two years prior to the date of her first visit March 1, 1906, and the resulting disfigurement was corrected March 10, by free extirpation, and submitted to histologic examinations. The two cases present essentially the same clinical and histological characteristics, with the exception that in one case the paraffin, which was injected more deeply and in larger quantity was present in the tissues for a period of about three years, and in the other where it was deposited more superficially and sparingly, scarcely two years. The histological changes in the two cases are essentially identical in character, and will be reported in common. The specimens of both cases were hardened in alcohol, imbedded in paraffin after the ordinary methods, and dehydrated in xylol.

The general character of the epidermis in the two cases is normal. The papillæ are normally preserved, except where the superficially placed paraffin has secondarily induced a pressure atrophy. The hair follicles show signs of proliferative changes, similar to those commonly encountered in tissues in the vicinity of an early form of skin cancer. The hairs are normally preserved. The sebaceous glands, wherever evident, also share in the hypertrophic disturbance, approximating that of an adenoma of these structures, and similar to the stimulating effect of early malignancy upon these structures.

The gross appearance of the prosthetic area, under low power, is as follows. It is well encapsulated with a wall of fibro-connective tissue. Near the center there are usually one, sometimes several large cavernous spaces, entirely devoid of all contents, and surrounded in satellite form by innumerable smaller round cavities of similar character, giving the area a sort of honey-comb appearance, or more characteristically that of a well areated piece of Swiss cheese. These spaces were doubtless filled at the time of extirpation with remnants of paraffin, in unchanged or slightly changed form, so that it became easily dissolved and quickly carried away by the xylol in the process of clarification. The remainder of the mass resembled in its general appearance a granuloma, much like that of an early acute tuberculosis

before caseation has taken place. The resemblance to the latter is intensified by numerous small groups of giant cells. Some of the smaller cavities are partially obliterated with a fibrinous-like deposit, and the inflammatory infiltration is most marked and active in the immediate neighborhood of the large and small cavernous spaces. The surrounding tissues share strongly in the general inflammatory reaction, and the blood vessels show distended lumina, and thickened walls. Other glandular elements and structures are not in evidence in the proximate tissues of the prosthesis: there are areas of large, deeply stained, conglomerate cells, corresponding probably to the original distribution of the sudoriferous glands, and bear a strong suggestion of malignant change. Under the high powers of the microscope, this suspicion becomes more strongly intensified by the character of the cells and their very irregular and conglomerate arrangement and distribution.

The subcutaneous fat is infiltrated with inflammatory leucocytes, and has undergone a general fibrosis. Elastic fibres are well preserved in the upper layers of the cutis, but entirely absent in the area of prosthesis.

Under higher power the prosthetic area is made up of cellular elements, grouped in alveolar form by a mesh-work of loose areolar, inflammatorily infiltrated connective tissue. The alveoli contain a large number of cells and degenerated cellular products and an extensive infiltration of leucocytes. The cavernous spaces are surrounded with a thick infiltrating wall of leucocytes. The smaller partially occluded cavities are observed under high power to contain masses of flattened degenerated cells, with here and there an occasional leucocyte. The distinguishing and characteristic pathologic changes are the Swiss-cheese-like general appearance under the low powers of the microscope, the alveolar-like distribution of the inflammatory products and the abundance of giant cells.

The pathologic process which is probably a disintegration and removal of the paraffin by leucocytic action is effected as follows: The paraffin when injected is distributed in strands along the lymph spaces, and between cellular structures, and here and there en masse by the rupture of tissues and their forcible distension. Its presence as a foreign body excites a reactionary inflammation sufficient to wall it off from the surrounding tissues and secure its encapsulation with newly formed fibro-connective tissue. The leucocytosis is then directed against the paraffin proper, beginning with a peripheral invasion and disintegration. The new army of invasion yields to

degenerative changes, in the form of a flattening of the cells, with loss of nucleus, and general staining properties. This army of degenerated cell invasion is succeeded by a second army which undergoes a less complete form of degeneration, and the nuclei preserved, thereby forming masses of giant cells. These are in turn invaded by a third army, which has for its ultimate object a complete fibrosis. All these changes can be readily traced in their successive steps; the larger cavities retaining in their central zones the paraffin in its probably unchanged original form, the next smaller caliber cavities show the first step in the pathologic change, the next, the second, and smallest alveolar spaces, corresponding to the thinnest strands of injected paraffin, show evidence of fibrosis in its most complete form.

The histologic changes which paraffin prosthesis undergoes, bears a striking similarity to those of agar-agar, when the latter is injected into cavities at a melting point above the temperature of body of the experimented animals. These changes are presented by Kramer in the *Annals of Surgery*, who calls to mind that the agar-agar is rapidly converted into organized tissue, in a manner not at all dissimilar to an ordinary thrombus. He states "that the process by which connective tissue replaces the agar jelly, is precisely the same as that by which a thrombus becomes 'organized.' The agar represents the blood clot, and the sides of the plural cavity represent the walls of the vessels, from which sprout the newly formed blood vessels, which are to vascularize the newly formed connective tissue. The agar acts as a trellis-work to support the new tissue and to direct its growth. The jelly being a bland mass and becoming semi-solid at the temperature of the body, and therefore not readily diffusible, is gradually broken up and removed by wandering cells and phagocytes, as is the case with the blood clot. This organization takes place equally well when the agar is injected subcutaneously. The injection must be made with sterile jelly and under aseptic precautions."

The prolonged action of paraffin upon the surface of the epidermis, is frequently followed by a precancerous form of keratosis, and the analogy seems probable that its deposition in the deeper tissues may eventually induce similar changes.

The disappearance of paraffin from the tissues into which it has been injected as also determined by experiments upon animals, is effected not by an improbable form of oxidation, as maintained by Juckoff, nor by its slow diffusion along lymph spaces by gravitation or muscular action as set forth by Meyer, but by phagocytic action.

The former seems improbable on a priori grounds, on account of the firm, stable character of the substance, and its natural resistance to all forms of normal physical agencies. The latter is equally improbable on a *priori* grounds that its physical character is naturally such as to preclude its ready removal along lymph channels; its prompt encapsulation by fibro-connective tissue renders the hypothesis still less probable.

Encapsulation with fibro-connective tissue precludes embolic sequellæ. Embolism is therefore an early and not a late possibility and only when paraffin of low melting point, under 40° C. is employed or when paraffin of high melting point is modified by mixing it with that of liquid paraffin or that of a low melting point. The numerous cases of embolism,² which have resulted from paraffin prosthesis and mercurial injections, modified by oily menstrua, owe their explanation upon that basis.

The observation of Comstock that animals injected with paraffin with a melting point lower than the temperature of their bodies died in a few weeks of thrombosis is of great practical interest and possesses great explanatory value in this particular direction.

To recapitulate—the histologic changes of paraffin prosthesis indicate that the paraffin is slowly removed and gradually replaced by fibro-connective tissue. Its removal is effected by phagocytosis, by means of successive invasion of inflammatory leucocytes, and their successive degenerations. The prosthesis acts as a foreign body by its mere presence, and becomes promptly encapsulated with newly

² Death following subcutaneous injections of olive oil has been reported by Febriger, in a case of stricture of the esophagus, the patient having been partially sustained by this method for nineteen days, and with a gain of ten pounds; on the twentieth day, while the injection was being administered, patient coughed violently, became cyanotic, suddenly collapsed, and became unconscious, and within three hours was hemiplegic. The post-mortem on the following day revealed the fat emboli in all the viscera, particularly the lungs and brain, and notably over the right motor cortical area, corresponding to the left hemiplegia.

Paraffin injections form particularly dangerous emboli foci, because they are exceedingly stable, and as foreign bodies are apt to remain a long time in loco, their absorption or elimination is definitely prolonged. The best criterion for the danger which accompanies paraffin injections is to be derived from the experience of dermatologists, in the mercurial injections of paraffin menstrua, for the treatment of syphilis, which they have been extensively carrying out for the past fifteen or more years. Lesser was the first to report such an experience in 1888, and the reports of various investigators vary considerably as regards the degree of frequency. Moeller reports embolism 43 times in 315 patients injected 3835 times, while Ebstein only 7 times in 908 patients injected 8292 times, and Harthing only one case in 8000 injections.

formed fibro-connective tissue. It stimulates the surrounding tissue to proliferation and adenomatous changes, resembling those of early malignancy. The segregation of the encapsulated paraffin in rounded cavities gives the condition a characteristic Swiss cheese like appearance, and the successive degenerations of invading phagocytes, corresponding with the duration of the process and the size of encapsulated paraffin, are areas of flattened, non-nucleated cells, giant cells, and fibro-connective tissue. These areas are separated by an areola of fibro-connective tissue, which gives to the whole prosthetic area an alveolar like structure. Its analogy to tuberculosis is marked. The paraffin, like the bacilli, acts as a foreign body, incites a leucocytic invasion, which undergoes degeneration and caseation. This in turn excites another invasion, with the formation of a large number of giant cells from the agglutination of the cell bodies, and the preservation of the nuclei. The final goal of each is a complete fibrosis. The disappearance of the paraffin by oxidation or by its movement in solid form along lymph channels is improbable and not confirmed by histologic or physiologic facts. The histologic appearances also fails to furnish any special reason for the crystalline character of the paraffin favoring leucocytic invasion.

DESCRIPTION OF PLATES.

- Pl. XLV. Fig. 1. Granulomatous appearance resembling tuberculosis. Winkel Obj. 1. Oc. 2.
 Fig. 2. Showing granulomatous appearance, giant cells, cavernous spaces and fibrous degeneration. Winkel Obj. 1. Oc. 2.
- Pl. XLVI. Fig. 3. Showing cavernous spaces, previously filled with paraffin, which had been removed in process of hardening and clarification. Winkel Obj. 3. Oc. 2.
 Fig. 4. Showing cavernous spaces originally filled with paraffin surrounded by walls encapsulated with reactionary inflammation partially obliterated with a fibroid degeneration of flattened cells or completely obliterated with Langhan's giant cells. Winkel Obj. 7. Oc. 2.
- Pl. XLVII. Fig. 5. Showing leucocytic invasion, giant cells and fibrous degeneration. Winkel Obj. 7. Oc. 2.
 Fig. 6. Irregular and conglomerate mass of cellular exudate, occupying original site of a sweat gland, showing evidences of malignant degeneration. Winkel Obj. 7. Oc. 2.

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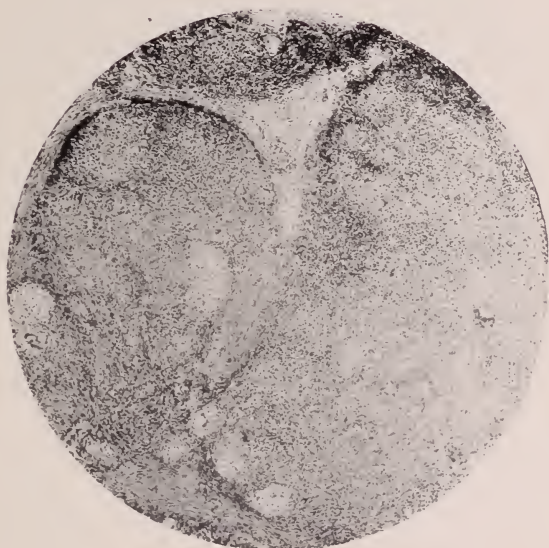


Fig. 1.

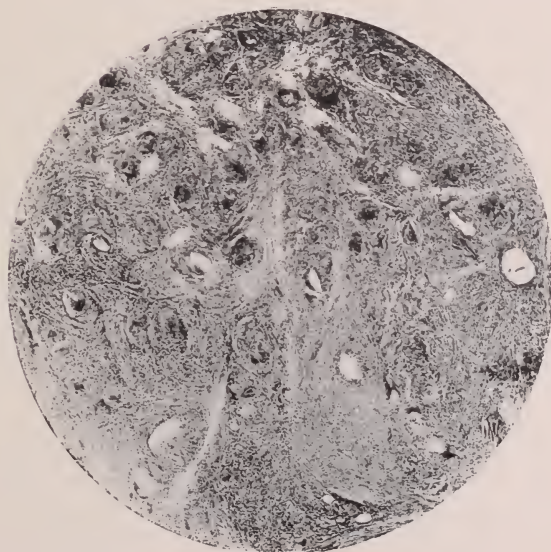


Fig. 2.

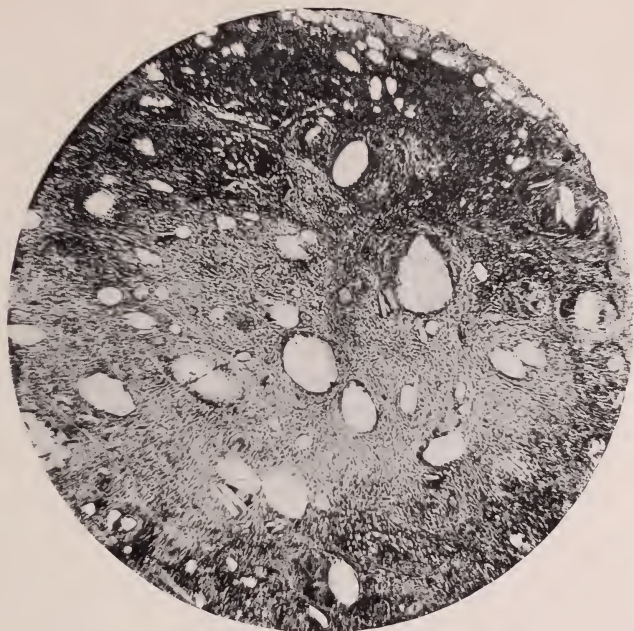


Fig. 3.

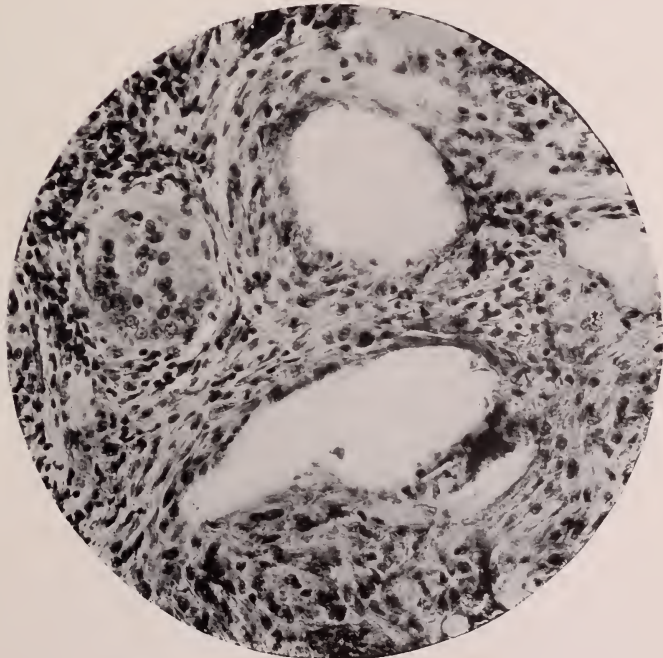


Fig. 4.

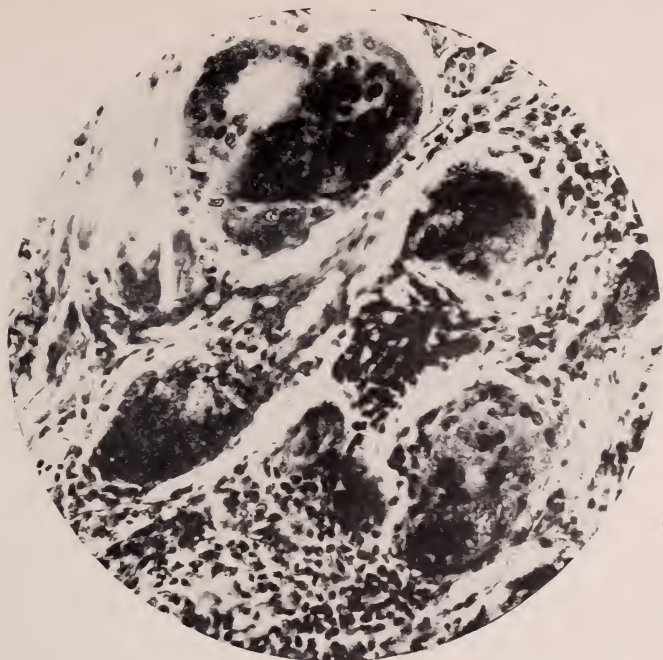


Fig. 5.

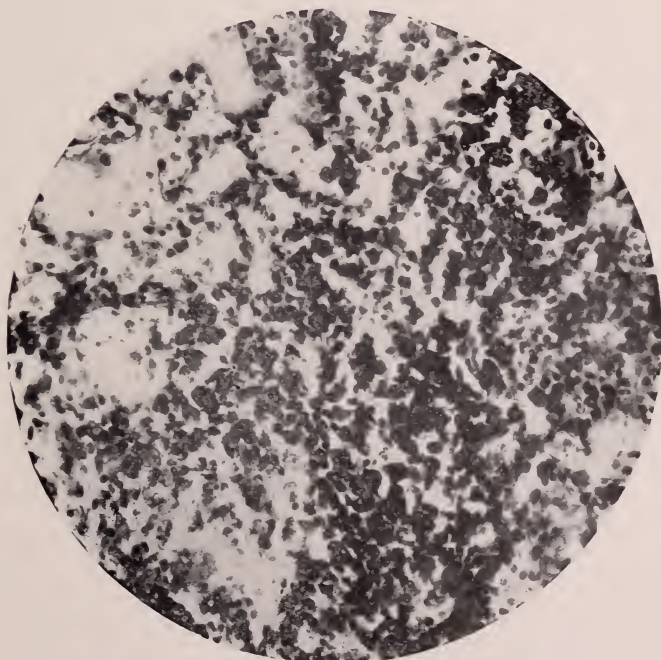


Fig. 6.

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MYIASIS DERMATOSA.

By AUGUST STRAUCH, M. D., Chicago, Illinois.

MYIASIS (from *μύια* a fly) is an affection which is caused by the larvæ of various species of flies which locate in the skin of the animal and human body and in the cavities directly communicating with the general integument, *i. e.*, the nose, pharynx and ear, or the gastrointestinal tract, the latter, however, being rarely affected in man.

The clinical and pathological features and the prognosis of the disease depend not only on the localization of the affection, but also on the varying biology of the different fly species, especially of those of the family of the Muscidæ and Oestridæ. The different species of Muscidæ, as a rule, deposit their numerous eggs or their maggots on dead putrefying substances of vegetable and animal origin, excrements, etc., and sometimes on living cattle, pig, horse, goose, etc., and not infrequently even on human beings. Allured evidently by the smell of blood or penetrating odors, they seek wounds, foul, gangrenous ulcers, eczematous patches of the surface of the body or furuncles as a nidus for their eggs. They also often choose the nasal cavity and the auditory canal of individuals who are suffering from coryza, ozæna or fetid otorrhœa, depositing their eggs especially when the subjects are asleep or in a state of alcoholic intoxication. Another, although rare localization, are the female genital organs, the menstrual flow or lochial secretions of which allure the flies to deposit their eggs.

After the maggots have hatched out, they penetrate by means of their mouthhooks into the previously diseased skin, in some cases possibly even into the intact mucous membranes; thus they often constitute a dangerous complication of the forenamed affections.

The larvæ in each focus of infection are, as a rule, numerous; being gregarious, they often wander into the surrounding tissues where they devour *with great aggressiveness* and voracity the connective tissue, fascia, musculature, periosteum and cartilage after these parts have been softened by the effect of their saliva; in this way they denude bones and, at times, cause extensive destruction of tissues or putrid inflammation, periostitis, caries and necrosis of the

walls of the cavities of the nose and ear. From here they wander into the adjoining cavities, antrum Highmori, tuba eustachii, cavum nasopharyngeale, sinus ethmoidalis, frontalis, etc., producing here the same destruction.

The propagation of the inflammation by way of the opened blood vessels and lymphatics through the agency of microörganisms as well as by the direct emigration of the maggots through fissures and canals of bones into the intracranial surface of the base of the skull, may produce meningitis, intracranial abscesses, thrombosis of the sinuses and pyæmia with fatal termination.

In case the larvæ are nested in ulcers of the skin, they, of course, prevent the healing process, sometimes producing abscesses, phlegmonous inflammation and they may lead to the formation of foul, secreting granulations and extensive undermining of the skin. After the larvæ have left their original nidus to undergo the transformation into the pupa, the wound heals rapidly. This form of Myiasis, which is produced by larvæ of the Muscidæ is thus termed Myiasis mucosa cutanea, nasopharyngealis, genitalis. In Europe it is sometimes found on men, especially in the farming districts of Russia, Norway, less frequently in France and Germany, being commonly due to sarcophila Wohlfarti Portschinsky, or to flies of the species of sarcophaga. The principal representative of the group of Muscidæ is found in warmer climates, namely, *Lucilia macellaria* or the screw worm, a very aggressive maggot, which often gives rise to dangerous affections. Its geographical distribution in the western hemisphere extends from Argentina to the southern parts of the United States and in the eastern hemisphere—as far as it is known—over Cochin-china, Tonking and a part of Hindoostan. Myiasis of the nose and ear-cavities, as a serious complication of coryza, ozæna syphilitica and otorrhœa is found frequently, in Costa Rica, Nicaragua and Panama.

The æstridæ (Biesfliegen) among which I may mention first the skin æstridæ or hypodermæ, are true parasites and deposit their eggs upon the *normal* skin of animals, but only *exceptionally* directly upon that of man. The larva, which develops on the skin surface, bores itself into the subcutaneous tissue, but after that *does not wander*. Remaining at the primary seat it provokes a *non-suppurative*, chronic indolent inflammation with *new formation* of dense connective tissue, this affection being called Myiasis dermatosa æstrosa (Dasselbeule).

The larva in the focus of affection is *single*.

I had an opportunity to observe the last mentioned lesion on myself during a voyage in Brazil.

In the first week of March, 1904, when I awoke one morning, I noticed in the regio infraclavicularis sinistra and, at the same time, in the regio umbilicalis sinistra, two skin efflorescences which were then of the size of a lentil, diffusely reddened, infiltrated and but slightly prominent over the level of the surrounding normal skin, apparently a hair follicle. These infiltrates were somewhat tender upon pressure and itched intensely. A few days later I observed on the summit of the slightly larger, flat, raised efflorescence, a yellowish scab of the size of a pin-head, after the removal of which a punctiform opening presented itself, the scab reforming very soon.

After about twelve days, the tumor was larger than a big pea, hard, somewhat diffuse, only a little reddened, located directly in the subcutaneous tissue and closely adherent to the cutis; it was almost painless upon pressure, but itched intensely.

One regional lymph gland (inguinal) was for a few days slightly swollen and tender.

At that time when violently scratching the swellings during the night, I happened to extract a yellowish white, thin, tiny larva about 6 mm. in length, from the opening of one of the tumors; the latter then disappeared entirely within two to four weeks. The other tumor I allowed to develop further, as it did not cause me much annoyance except intermittently a sharp prickling sensation, which occurred a few times a day, lasting only a few seconds and usually followed by an oozing of a few drops of yellowish, sometimes sanguinolent fluid from the opening of the tumor. This discharge never contained visible granules although these were especially looked for.

After two months the tumor had grown to about the size of a walnut, was solid, coarse to the touch, indolent, ovoid, the longitudinal axis being nearly parallel to the surface of the skin. It was then rather sharply circumscribed, embedded in the panniculus adiposus and closely adherent to the overlying skin.

The latter was only slightly prominent and presented on its summit a pin-head opening which was surrounded by a slightly injected small area. A fine probe could be passed easily through a short entrance canal into a small cavity within the tumor.

Sometimes motions of the caudal end of a larva could be observed in the opening of the tumor.

The intermittent pains although lasting only for a few seconds

became more pronounced, the intermittent discharge of yellowish fluid following the pain more marked. The latter contained, when studied under the microscope, both red and white corpuscles in limited numbers and many colorless, long double-pyramids of the appearance of Charcot-Leyden's crystals.

The tumor, which was at that time extirpated, consisted, macroscopically, of dense connective tissues and harbored in its cavity a fly larva, the latter representing in all probability, I believe, the larva of the *æstrus dermatobia noxialis*, although I am aware of the difficulty of an exact zoologic determination.

DESCRIPTION OF THE LARVA. (Fig. 1.)

The larva, somewhat shrunk by the effect of alcohol-hardening is 15 mm. long and has a maximum breadth of 6 mm.

Its body is of yellowish gray color, pyriform in shape, anteriorly broader and, to all appearances, composed of eleven annular segments which are covered with round granular protuberances and which are at the anterior half of the trunk broader and shorter than at its posterior part. Tiny stiff, black spinules are arranged in lines around the body in the furrows between the segments. On the ventral side of the cephalic end of the larva are two black tiny hooks (mouthhooks).

The anterior margin of the second, third and fourth segment is bordered by a single-lined girdle of little hooks, while between the fourth and seventh segment there are double rows of these tiny spines, bordering the anterior and posterior edge of very narrow dorsal intermediary segments, which are interposed between the aforementioned segments.

On the ventral surface the intermediary segments are missing, but the spinules are here, also, filed in parallel double lines across the body.

On the posterior border of the seventh ring-segment there is again a single-lined, hardly visible dorsal girdle of hooks, while between the remaining segments, macroscopically, no more spinules are to be found.

The last rings of the body are not distinctly discernible, possibly as the result of the shrinkage and the hardening process in alcohol.

DESCRIPTION OF THE EXTIRPATED MYIASIS TUMOR. (Dasselbeule).

The tumor measures 2.2 cm. in length, 1.3 cm. in breadth and more than 1 cm. in height; consists of connective tissue and, opened by a longitudinal cut, reveals a longitudinal trough-shaped cavity.

In the same lies a larva of 1.5 cm. of length. A cross section made through the center of the specimen shows the body of the larva (fig. 1) surrounded by tissue for the greater half of its circumference. The inner surface of the cavity presents numerous papillary elevations, regular in size and arrangement, which by this regularity indicate that they are preformed structures rather than artefacts, *i. e.*, formations of folds by shrinkage.

Nothing of an epithelial layer can be recognized; here and there upon the inner surface of the cavity an endothelium-like layer can be seen, the exact nature of which, however, cannot be determined precisely, since the uppermost strata of the wall are considerably macerated and covered with leucocytes and cell-debris.

The cavity measures 0.7 cm. in breadth, its wall presents the picture of an inflammatory granulation-tissue. Numerous lymph vessels and blood vessels pass through this tissue which is very abundant in cells, containing round cells, plasma cells and numerous leucocytes. Thereupon follows a stratum of connective tissue abundant in cells and upon this layer externally fat tissue with strikingly numerous lymph nodes. A cut through the entrance duct of the cavity shows a channel about 0.5 cm. in length; the lumen of this canal, as it deepens, widens to 2 mm. in diameter. Its walls are covered with stratified flattened epithelial cells in many layers, showing all strata of the common epidermis. The stratum cylindricum lies flatly upon the connective tissue without any formation of papillæ. The epithelial layer has in some places the double thickness of the normal epidermis of the surface of the skin.

Only at the very orifice of the duct in the skin are there considerable papillary growths and depressions of epithelium; thus on cross sections continuous bands of epithelium are presented.

The lumen of the duct is partly filled with degenerated horny masses of epithelium. In the surrounding tissue of the channel are also signs of inflammation.

The whole structure corresponds histologically to the picture of a chronically inflamed, dilated *hair-follicle*.

In Europe the occurrence of *Myiasis dermatosa æstrosa* in man is very uncommon. The cases described were all due to the larva of

Hypoderma bovis (fig. 2 and *Hypoderma diana* (figs. 3 and 4), both living parasitically on the skin of cattle, roe and deer respectively.

Notwithstanding the records of epidemics of "*Dasselbeule*" among man in higher latitudes as in Ireland, Shetland isles, and in various districts of Norway, this lesion of the integument is chiefly distributed over the warmer zones of the globe: in Argentina, Brazil, Central America, in the southern parts of the United States and, according to late reports, also in British and German East Africa, in Natal, Rhodesia and the Transvaal.

In warmer zones the larva of *Dermatobia noxialis* and possibly of varieties of this fly must be considered as principal causative factors.

The studies of Brauer (Vienna), a prominent authority in the natural history of the æstri, have shown that the æstridæ under ordinary conditions, attack almost exclusively various animals (dogs, cattle, sheep, etc.), and *not* man; that they deposit their eggs on the skin and that the larvæ, after having been hatched on the skin of the animals, must first be transported to man by direct or indirect contact.

This fact explains the frequency of this Myiasis form among herdsmen, hunters, peasants and children on farms.

On the other hand, some authors hold that the fly not infrequently deposits the eggs directly upon the skin of man, and Kolbe reports from British East Africa an Œstrous fly (*Dermatobia kenix*) which lays its numerous eggs in great haste *directly* upon the skin of individuals while they are bathing.

The exact time when I contracted the Myiasis tumor and the modus of infection are entirely unknown to me.

The young hatched out Œstrus larva bores itself through the skin by means of mouthhooks into the subcutaneous connective tissue or it wanders along a hairshaft into the hair-follicle. The immigrated larva here produces a chronic inflammatory irritation as a foreign body chiefly by its slow contractions or respiratory and stretching movements and by the rough, hard, spinous character of its integument.

The chronic inflammatory irritation is responded to on the part of the surrounding tissues by the formation of new connective tissue, which encapsulates the larva like a tightly enclosing sack.

The inner surface of the oblong cavity produces a serous fluid which constitutes the nourishment of the larva, whilst the removal of the excrements of the parasite as well as the supply of air is effected

through the canal which opens on the surface of the host. At times the posterior end of the larva with its two respiratory apertures (stigmata) may be visible.

The smarting intermittent attacks of pains and the oozing of fluid, referred to, are evidently provoked by stronger, more active motions of the parasite within the cavity. After a few months the larva arrives at maturity and leaves its abode in order to undergo the transformation into the *pupa* in the ground; then the connective tissue sack shrinks slowly to a little hard node beneath the skin. The same occurs if the larva has been entirely removed. If it is not completely removed an acute inflammation may occur, evidently excited by bacterial infection upon decaying remnants of the parasite in the cavity.

If the larva has been removed at an early stage, the tumor, of course, disappears entirely.

In Brazil the juice of tobacco is dropped into the cavity, or tobacco leaves are applied to the opening of the tumor, and the larva stupefied or killed in this way, is then extracted from its hole. In some countries the people asphyxiate the larva by hermetically closing the opening of the tumor with postage stamps, or by adhesive plaster.

The interesting fact may be mentioned in parenthesis, that representatives of many families of the mammalia, are known as hosts of skin larvæ of various fly species, *e. g.*, roe, reindeer, cervus rufus, cervus alces, cattle, goat, sheep, chamois, steinbock, antelope, bon-assus americanus, moschus moschiferus, horse, dog, felix concolor, mice, hare, squirrels, rabbits, monkeys, hippopotamus, etc.

The larva of *Dermatobia noxalis* is found on cattle, sheep, dog, cervus rufus, felix concolor, monkeys and man.

According to Stricker's (Vienna) microscopical findings, the myiasis-tumor of large game is covered on its inner surface and in the duct, with pavement epithelium, and he takes the view that the development of the æstrus larva (*Hypoderma*) takes place in a hair-follicle. Stricker's findings are the only microscopical statements I could find in the literature, wherefore, I consider it justifiable to have given a detailed account of the microscopical findings of *Myiasis dermatosa æstrosa* of man. While *Myiasis gastrointestinalis* in certain Herbivora, as the horse and sheep, caused by the presence of *Gastrophilus*-species (*Æstridæ*) is fairly common and generally known, the analogous gastrointestinal affection produced by the presence of larvæ in man seems to be rather infrequent. *Musca vomitoria*,



Fig. 1.

Larva of the Author's Myiasis Tumor
(double the natural size.)



Fig. 2.

Hypoderma Bovis



Fig. 3.

Larva of Hypoderma Diana (double
size.)



Fig. 4.

Hypoderma Diana
(about double size.)

Homalomyia scalaris (Lusterfliege), *Sarcophaga carnaria* and other numerous species of *Dipteræ* are, beyond doubt, occasional parasites of the human intestinal tract, giving rise to ulcers, catarrhal symptoms and symptoms resembling dysentery, enteritis pseudo-membranacea, with acute or chronic course, and sometimes even to peritoneal inflammatory tumors or intestinal stenosis.

The biology of these parasites, being a subject of the highest interest, goes far beyond its merely zoologic importance, as it has a close bearing to various morbid processes not only in animals but also in man.

SUMMARY.

Notion of Myiasis. Biology of the larvæ of *Muscidæ*. Clinical aspect of Myiasis muscosa of the nose cavities, ear and skin of man. Geographical distribution of this form of Myiasis. Biology of the larvæ of skin *Æstridæ* (*Hypoderma*). The author's own case of Myiasis dermatosa æstrosa. Description of the larva found in his case. Macro- and microscopical description of the extirpated Myiasis tumor. Myiasis æstrosa in Europe and the warmer zones of the globe. Further remarks on the biology of æstridæ. Therapy. Myiasis cutanea on animals. Myiasis intestinalis on animals and man.

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SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

343d Regular Meeting, September 25, 1906.

Dr. Hermann G. Klotz, in the Chair.

Extensive Lupus of the Face, Showing Result of X-ray Treatment.
Presented by Dr. BULKLEY.

Lottie L., age thirty-three. Mother died at forty-six, "general breakdown"; father living and well. One brother living and well. One sister died at sixteen of what the doctors called "scrofula"; one sister living and well. Patient had usual diseases of childhood and was called a sickly child, but after adult years has been called strong and well, except for present condition. Present trouble started at age of twelve, under right ear, coming on after an attack of measles, in fact before the entire recovery from the attack of measles. Patient says it started as swellings about the size of butternuts and these burst, forming a running sore for a few months and then spreading slowly over chin, cheek, and up to nose in form of small pimples, looking as if it was inflamed. Patient then went to hospital (this about ten years since disease started). Surgeons cut down the right side of the nose and cauterized the paths of the disease. Patient then (about one year) came to the N. Y. Skin and Cancer Hospital, the lesions were bored with nitrate of silver, and had extensive treatment, remaining here for seven months, going home and remaining there for a year, and then coming back to the hospital for another treatment of seventeen months. Returned home again, and has come back for the third time, it being about eight years since the last time here. At present she has been in the hospital for seven months, and had X-ray treatment, but the disease spread.

Treatment X-ray. Borings with application of pure carbolic, also pure ichthyol. At present there are no traces of the disease, and although considerably scarred over the entire face, the appearance is very presentable.

Multiple Idiopathic Sarcoma; Hands, Feet and Ears (Kaposi Type).
Subsidence of the Disease Under X-ray Treatment. Presented by Dr. BULKLEY.

Isaac G., age sixty-four. Native of Austria. Father died at age of eighty-eight, cause unknown. Had two brothers, one died six years ago—of rupture, he thinks—aged fifty-six; cause of death of other unknown. One sister died, cause unknown; two sisters living and well. Patient was sick thirty-four years ago with typhus fever, but otherwise has been well. About a year ago (February last) patient says that on the left foot at the base of the large toe on the inner side, he began to have

itching and prickling in an area about the size of a silver dollar, and in about two weeks papules began to develop over this area. After these "pimples," as he calls them, came out, the itching ceased. The next regions attacked were the hands, then the other foot. Since coming into the hospital (N. Y. Skin and Cancer) new lesions have developed on ankles, knees, wrists, and lobe of right ear. These lesions are purplish red in color, raised and hard, generally in groups, about four and one-half inches in diameter.

Treatment. He has been given X-ray treatment with the coil, two and one-half minutes exposure, at eight inches from target. The older lesions have taken more exposure to reduce than the new ones. The ray is given with the tube bare, so that rays penetrate the surrounding skin at the same time, and although new lesions have developed since being in the hospital, they are in some area distant from the one exposed.

Bullous Disease on the Border Line Between Erythema Bullous and Dermatitis Herpetiformis. Presented by Dr. BULKLEY.

The patient was a male, German, about forty-five years of age. The case was presented as one of considerable interest, being erythematous in character. It commenced about six weeks ago with an eruption about the nose which was inflammatory and congestive. The crops of bullæ spread rapidly over the body and were attended with inflammation, redness, swelling, heat, and itching. The bullæ were of various sizes, the largest being about the size of a walnut, but most of them were about the size of a pea. It was a case on the border line of dermatitis herpetiformis and erythema bullosa. The fact that the patient had had no previous attacks of this character and that it has been so decidedly erythematous, caused a hesitation in the diagnosis, but for the time it seemed more allied to erythemata than to herpetiformis.

Dr. SHERWELL said that at present it resembled dermatitis herpetiformis more than anything else. It had not lasted long enough to establish a true case of dermatitis herpetiformis. It is very rare to see so acute a case as in this instance.

Dr. HOLDER said that he was inclined to regard it as a very acute case of dermatitis herpetiformis, though our views are not yet clearly crystallized as to just what was included under this term.

Dermatitis Herpetiformis. Presented by Dr. BULKLEY.

Edward H., age forty-six; occupation, house cleaner. Father died in 1864 in Civil War. Mother died of tuberculosis at age of forty-three. One brother died at three months, cause unknown. One brother living and well. Patient has had all usual diseases of childhood. Since then has had stomach trouble at different times, and has now to be careful what he eats. Complains of constipation. Present trouble started a year ago last August, on left elbow and across lower part of back, and gradually spread all over body, head and extremities, coming out in blisters and groups. Patient thinks general health has not been disturbed, and in

fact says he feels better. Patient has tried everything but with no result until he came here. At present eruption is composed of papules, some vesicles and bullæ, in groups though largely faded, is very characteristic of the disease. He has, however, a very considerable number of lesions on the face and scalp, which is somewhat unusual.

Alopecia Areata of Traumatic Origin. Healed for 12 Years; Relapse After Trauma on the Same Spot. Now Recovering. Presented by Dr. SHERWELL.

John S., boy, age about eight. Came to clinic, October 4, 1894, with condition of alopecia areata, commencing at nucha and extending up to occipital ridge, and a number of bare spots on other parts of scalp, especially on upper parietal regions. The condition had come on after a fall and contusion on back of head, occurring about six weeks prior to his appearance at clinic. Was put on stimulating ointment of chrysarobin and salicylic acid, etc., and internally arsenic, and syrup of iodide of iron. Made continuous, though slow improvement; finally disappeared from observation almost cured. Hair came back white in some spots, but regained natural color with time, and reported that up to present, lesions had continued abundant.

Reappeared at office 13th of September of this year, with the history of a severe contusion of back of head in approximately the same place as original injury twelve years previously, caused by blow of baseball. Total alopecia, occurring first as areata spots. Renewed treatment as before, and evident improvement has resulted. Complained, however, that the ointment stained, and naturally interfering with comfort and æsthetic condition. Have given the same internal treatment, with a stimulant lotion instead of unguent. Is doing well. Case is shown now to establish or fortify the position I have always taken, that true alopecia areata is a tropho-neurosis, though simulated occasionally by mycotic conditions.

Dr. KLOTZ said that it was, considering the frequency of injury to the head, strange that alopecia did not oftener occur in this way, and it seems to indicate that some other cause or conditions favorable to produce the disease must be present.

Dr. BULKLEY said that the case confirmed his opinion that the disease was a trophic neurosis.

Acute General Lupus Erythematosus. Presented by Dr. BULKLEY.

Mrs. Mary S., age thirty-eight. Born in Ireland. Father died as result of fall at thirty-nine. Mother living and well. Two sisters died of tuberculosis, one at forty-two, other at thirty-five. Three brothers living and well. Patient says present trouble started about two years ago this summer, on right cheek; in about two months the left cheek became affected. The eruption began as a small pimple which itched and burned. The disease rapidly spread into scalp and down on neck. In May, 1906, the anus became affected. Marked trace of albumin in urine.

Dr. Bulkley said that the patient presented such a curious mixture

of symptoms, including a large number of superficial pustular bullæ, that it was difficult at first to make the diagnosis, but the disease was thoroughly characteristic upon the scalp and arms. The patient had left the hospital much benefited, but remained out only two or three weeks, when, becoming over-heated from some cause, has relapsed into the same condition as before.

Dr. BRONSON cited a case of his, occurring some years ago, which resembled this one and corresponded rather to the type described by Kaposi as lupus erythematosus disseminatus et aggregatus than to the ordinary discoid form. The patches occurred principally on the face, but were subject to periodic exacerbations accompanied by outbreaks elsewhere, especially on the arms, that remained but a few days generally. Some atrophy was left by the patches on the face. The exacerbations were generally preceded by prodromal symptoms—malaise and fever.

Dr. BULKLEY inquired whether any one had noted such pustular lesions in lupus erythematosus. He had never seen the eruption give rise to such conditions. The woman had a very heated skin. It seemed to be a pus infection super-added. The entire face and much of scalp was involved, the former being much congested. The eruption on the arms was mainly on the extensor surface.

Dr. JOHNSTON thought that the patient should be very carefully examined for tubercular foci. Most of such cases have been pronounced tubercular lesions.

Dr. BRONSON said that some years ago he had presented a young woman with tuberculous glands of the neck accompanied with lupus erythematosus of a pronounced inflammatory type, and which disappeared on removal of the glands, to recur again as other cervical glands became diseased and enlarged. Another operation would cause another disappearance of the lupus erythematosus, and this occurred over and over again. The last time he saw the patient she was much emaciated, evidently had pulmonary tuberculosis, but no lupus erythematosus.

Dr. KLOTZ inquired if the patient got entirely well, and Dr. Bronson replied that he had lost track of her.

Dr. SHERWELL said that it was certainly a very curious and acute case, and spoke of a case occurring in his practice some twenty-five years ago, when one of a religious sisterhood came to him with a facsimile of Dühring's picture of erythematous lupus on the face, which had been for some months reaching the stage which it presented. The lesion disappeared under treatment, which was simply a strong lotio alba. There was no possible mistake in the diagnosis, it was so typical. He also told of another patient successfully treated in the same manner recently. He had several times mentioned the first case in discussions of erythematosus lupus, which disappeared under treatment and remained cured. He had not seen the patient for over twenty years when she again appeared in his office recently with another lesion, having been free from anything of the kind for over twenty years. It also is recovering.

Early Tubercular Syphilide in a Man. Presented by Dr. BULKLEY.

This was a case of very unusual character in the way of the large papulo-tubercles widely distributed, which are rarely found in the early stage of syphilis. There was still an evident chancre, which was of about two months' duration.

Dr. KLOTZ said that some of the lesions did not seem to be really tubercular. They were soft and very superficial. One would always expect more or less scarring after tubercular syphilide.

Dr. BULKLEY agreed that this would be the case with later lesions.

Old Psoriasis, Greatly Improved Under Internal Treatment. Presented by Dr. BULKLEY.

The patient, a woman, had been presented before the society several times during the last two or three years, and was now again exhibited to show the remarkable improvement resulting from the use of pure nitric acid given internally, in increasing doses three times a day. She had had large areas of psoriasis rubra covering all the body, and the scalp had been completely covered with it, and also almost the entire area of the limbs. All of this, however, had almost entirely disappeared within the last three months. It had been one of the most severe cases which he had ever seen.

The patient had been in the hospital on several occasions, and for a length of time, and had had in past years almost every conceivable treatment, at times with fair effect, but often only aggravating the disease. When the acid was begun almost the entire surface had been covered with large red areas, presenting an appearance of dermatitis exfoliativa; but the disease was often a typical psoriasis. The clearing up of one area after another, was very striking. There had been no local treatment during these three months, except occasional applications of lubricating ointment.

Dr. BRONSON inquired about the rationalé of the treatment.

Dr. BULKLEY said that the treatment was purely empirical—just to see if anything could be done for the relief of the condition. Arsenic would only have made matters worse and so on account of the value of nitric acid in other conditions, it was determined to try it here, beginning with two or three drops and gradually increasing the dose. Her digestion was perfectly good and she feels well. She has had some itching, but for this she has had local treatment only of the mildest kind.

Pemphigus, Chronica. Woman. Bullæ restricted to the Extremities. Presented by Dr. BULKLEY for Dr. Fox.

Dr. Bulkey remarked on the unusual shape, looking almost as if it were artificially produced. The eruption was on both legs and on the right arm. The woman had been in the hospital for over a year, and has always maintained this condition. The arm had been treated with the X-ray, and was greatly improved.

Dr. KLOTZ said that it was certainly a very peculiar case, and if the patient had not been in the hospital so long, one would certainly suspect an artificial cause.

Dermatitis Herpetiformis. Presented by Dr. BULKLEY for Dr. Fox.

The patient was a girl of fifteen years, with the disease affecting the face of twelve years' duration.

Dr. BULKLEY said that this was the earliest case of this kind that he had ever seen, coming on at three years of age. Similar cases had been recorded, but he had never seen it himself. The only point in common with such cases was that none had been cured.

Dr. SHERWELL said that he had had more than one such case, but had never been able to cure them.

Dr. JOHNSTON said that he had seen none as young as three years. It was always on the face, and not on the arms or legs—on the extensor surfaces with the flexor surfaces comparatively free.

Dr. BULKLEY said that he had doubts as to the diagnosis of dermatitis herpetiformis.

Dermatitis Gangraenosa of Abdomen. Presented by Dr. BULKLEY for Dr. Fox.

The patient was a boy four years of age, and the dermatitis developed after a case of measles.

Psoriasis. Treated with Goa powder instead of chrysarobin.

Dr. SHERWELL did not think the union of salicylic acid and chrysophanic acid in any shape was new, and it was always useful in psoriasis. He had used it for many years, certainly twenty years, mixed with some basic unguent, a certain amount of alcohol is needed to dissolve the salicylic acid and thereby make it a soft unguent, say about 2 minims to each gram.

Dr. BRONSON wished to know why the goa powder was used in preference to chrysarobin. Was it because it was supposed to contain some effective agent other than chrysarobin, or because the chrysarobin of common use was unreliable?

Naevus Pigmentosus (congenital) on the left thigh of girl twenty years of age. Presented by Dr. BULKLEY for Dr. Fox.

Dr. Johnston said that this could be removed without any danger or trouble, and a skin graft be done with ease and there would be no danger of recurrence. It always lies superficially.

Dr. SHERWELL agreed that a surgical procedure was the only thing. He thought, moreover, that it could be done without skin grafting, by making two or three linear incisions parallel with necessary wound, undermining and sliding skin, so that scarcely any deformity would result.

Dr. JOHNSTON said that the reason he recommended such a wide margin was that the cells extend a good deal further into the skin than shown by the microscope—the same as in cases of keloid. If these are cut through and left—dissemination and death may result.

Dr. SHERWELL said that he had removed them from the face without recurrence.

Dr. JOHNSTON said that Dr. Frank Hartley had removed one from the back of a man's neck, and he is alive and well to-day, but that this is the only case that recovered after dissemination, so far as the literature shows. In reply to an inquiry from Dr. Klotz, Dr. Johnston said that histologically it was melanotic endothelioma.

Possible Pre-mycotic Stage of Mycosis Fungoides. Presented by Dr. BULKLEY for Dr. Fox.

Girl, ten years of age. Both legs affected.

Dr. SHERWELL said that the patient was very young for such a condition, although it looked very much like it.

Dr. DADE thought it was a simple case of eczema.

Dr. BULKLEY saw nothing which would not come under the general term of eczema.

Dr. BRONSON thought it was an eczema.

BOOK REVIEWS.

Manuel des Maladies des Reins et des Capsules Surrénales, sous la direction de M.M. G. M. DEBOVE, Doyen de la Faculté de Médecine, Membre de l'Académie de Médecine. CH. ACHARD Professeur agrégé à la Faculté, Médecin des hôpitaux. J. CASTAIGNE, Chef de laboratoire à la Faculté, Médaille d'or des hôpitaux, par M.M. J. CASTAIGNE, E. FEUILLIE, A. LAVENANT, M. LOEPER, R. OPPENHEIM, and T. RATHERY, *Masson et Cie*, Editeurs, Paris, 1906.

This book is an excellent treatise of the diseases of the kidneys and of the suprarenal glands, not a rehash of a number of older books, but refreshingly original, thoroughly modern and scientific and at the same time exceedingly practical. Although some preeminence is given to the investigations of French savants and to French literature, due justice is afforded to the important work of other authors. In regard to mooted questions the different opinions and theories are placed before the reader fairly and without prejudice in a clear and comprehensive way and in lucid language.

Following a brief chapter on the structure and the physiology of the kidneys, the examination of the urine is the subject of the second chapter. It is pointed out, that its purposes are not restricted any longer to detect diseases of the kidney, but embrace opinions on the permeability of the kidneys, on the functions of the heart, the liver and the entire organism in general. Leaving aside complicated methods which exclusively belong to the specialist, the authors have paid attention to the more simple but exact means of examination which are accessible to every physician. Indeed, the pages treating of the physical, chemical and microscopical examination are very practical and concise. In the third chapter, a clinical study of the renal functions, the practical value of the methylene blue test is particularly demonstrated.

The second part, the analytical study of the diseases of the kidneys naturally occupies by far the greater portion of the book. The principal task of the renal filter, to eliminate from the blood the great portion of toxic substances, is connected with great danger and but rarely an infection or intoxication of the blood will not be complicated by some kidney lesions. Besides the approach of infectious substances through the blood, they may find their way more rarely by ascending through the ureter or through the lymphatics. Finally the kidneys are subject to injury by various mechanical agencies. The affections of the kidneys are therefore divided: (1). In non-specific inflammations, taking inflammation in a wider sense so that not only the real nephritides are included, but also the active and passive congestions, the fatty and amyloid degeneration, renal and perirenal suppurations, uræmia as a frequent termination of most of the others, anuria, polyuria, albuminuria, hæmaturia and hæmoglobinuria are here considered. (2). Specific inflammations (tuberculosis, syphilis, cancer). (3). Mechanical affections, including renal lithiasis, floating kidney and the different forms of hydronephrosis. It is refreshing to find the inflammation of the kidneys treated not in the conventional but in an original, practical manner. Clinically, nephritis is divided into acute and chronic nephritis, the latter being subdivided into nephritis simply with albuminuria (*nephrite albumineuse*), with hydrops (*hydropigène*) and with uræmia (*urémigène*).

Without following further the authors through all their chapters, reference will be made only to the relations of kidney diseases to those of the skin and

to syphilis. Among the etiological factors scarlet fever as the principal representative of the infectious exanthemata is repeatedly mentioned. Among the exogenous intoxications by drugs some are mentioned which are frequently employed in the treatment of skin diseases, although pyrogallol, balsam of Peru and styrax are not among them. The influence of alcohol is also discussed. Among the autointoxications the following bear relations to the skin: the nephritis "*a frigore*," that occurring in the course of extensive burns, attributed either to reflex irritation from the sensitive areas of the skin or to the suppression of the functions of the skin or to the overloading of the urine with toxic substances. Similar conditions are present in the nephritis accompanying dermatoses, for instance, acute attacks of lichen, psoriasis or eczema or extensive varicose ulcers. More complicated conditions arise, if an eczema appears in a patient affected with chronic nephritis. The uræmic attacks, which may follow the cure of a weeping eczema, are thus explained. If the patient previously had an atrophic nephritis, the eczema may to a certain point serve as a vicarious issue or emunctory. If it is repressed, the intoxication of the organism increases and uræmic attacks may follow (p. 130). Besides the rapid suppression of an eczema, suppression of sweats may also provoke uræmic accidents (p. 471). Among the symptoms of chronic nephritis with tendency to uræmia (p. 275), purpura of the skin and mucous membranes is mentioned, and among those of uræmia itself, we find various disturbances of the sensibility of the skin: burning, itching, etc., also manifestations in the skin, which might almost be called cutaneous uræmia. Pruritus is the most common one, but besides there are real lesions like the *erythème papuleux irrémigène* of Thibierge, rubeoliform erythema, urticaria, purpura and particularly urea sweat, which is characterized by the appearance of a white dust, which resembles hoar frost, around the hair on the neck and head. In the therapeutic portion (p. 491), particular attention is paid to milk diet, to the diet without chlorine and to organ therapy (*opotherapie*).

The influence of syphilis as an etiological factor of kidney troubles is frequently mentioned, it being a cause of albuminuria, of chronic nephritis and of amyloid degeneration. A separate chapter (p. 545), describes secondary, tertiary and hereditary renal syphilis.

Of almost greater interest to the dermatologist are the affections of the *suprarenal glands*, in which pigmentary changes of the skin play such an important part. They are here not described in the conventional manner, but are classified according to their etiology and pathological anatomy. The most frequently found and most important changes are those which are caused by the bacillus of tuberculosis. Some of these lesions remain latent, others become manifest by the clinical picture, as described by Addison, others again present other groups of symptoms and essentially differ from the bronze disease by a more rapid evolution and the absence of melanoderma. Addison's disease, therefore, which is hardly ever observed in connection with non-tuberculosis lesions, does not appear as the constant clinical expression of tuberculosis of the suprarenal glands, but only as one of the combinations of symptoms, which may give expression to that affection.

As pigmentation is one of the important symptoms, its pathology and clinical features are amply discussed, also its differential diagnosis from other pigmentations, among them the pigmentation due to arsenic. As to its physiological pathology, after reviewing the various theories of the suprarenal, the cachectic and the nervous origin, the authors accept a mixed theory; they admit the influence of the abdominal sympathetic nerve on the pigmentation, but believe that the suprarenal secretion is the normal and necessary excitant of the nervous system for its activity in regard to the regulation of the pigment.

Brief chapters on hæmorrhages, acute and chronic inflammation, syphilis and tumors of the suprarenal glands conclude the book.

H. G. K.

Specielle Diagnostik der Hautkrankheiten, für Praktische Aerzte und Studierende, Von Dr. Ludwig Török, Docent für Dermatologie, Vorstand der Abtheilung für Hautkrankheiten an der Poliklinik in Budapest. 400 pages. Alfred Hoelder. Wien, 1906.

Certain principles of the diagnosis of the diseases of the skin have previously been laid down by Dr. Török in conjunction with Dr. L. Philippson in their General Diagnostic of the Diseases of the Skin Founded on Pathological Anatomy (Wiesbaden, Bergmann, 1895), and also by Philippson in his article: The Morphologic Tendency and the Anatomico-genetic Tendency in the Dermatology of the Present Day. (*Arch. f. Dermat.*, V. LVIII, 1901). To practically apply these principles to the special diagnosis of the diseases of the skin, has been the aim of this book.

The first step in the clinical diagnosis of the diseases of the skin must be the diagnosis of the pathological changes in the skin, but these changes must not be studied only in a certain locality or at a certain period of the disease. It is necessary to consider their origin, their pathogenesis and their development through different stages. Therefore we find not only minutely described the early and the late tissue changes caused by the different pathological processes, but also demonstrated how these changes may be discovered and defined by the senses of sight and touch. The individual lesions or efflorescences, which play so important a part in the dermatological literature, appear only as parts or phases of the pathological process. Therefore throughout the book the usual morphological nomenclature of the changes in the skin has been avoided in favor of a pathological-anatomical description of the local process. The second task of the diagnosis must be the diagnosis of the disease proper, for the definition of the pathological changes and of their seat and of their pathogenesis does not necessarily complete the diagnosis, but in many instances other considerations contributing to the clinical entity, have to be considered.

The various pathological processes have been divided into groups founded on the basis of pathological anatomy. The principle of grouping started from the character of the pathological change (for instance: hæmorrhage, hypertrophy, necrosis, etc.) and in each group those processes were included in which this particular change represents the most important and significant symptom on the skin. Other features, however, were taken in account, which bear certain relations to the course of the various diseases forming the group. Much less space than usual in textbooks is taken up by the differential diagnosis, because in a large number of morphologically similar conditions it is immediately and almost unconsciously accomplished by the definition of the anatomical change itself. For instance, it will not be necessary to recur to any finesse of differentiation to distinguish between morphologically similar changes which in one case principally affect the corium, in another one the epidermis, or cases in which simple congestive hyperæmia and exudation in the corium are produced, from those formed by a hyperplasia, etc.

The second chapter begins with the consideration of the most common and most frequent anatomical changes, namely those which result from the reaction of the blood vessels and of the sensory nerves of the skin to certain more or less intense or continued irritation of internal or external origin; these changes are briefly called the reactive disturbances of the blood vessels. These reactions the author follows through the different stages of congestive hyperæmia, serous exudation and cellular exudation to cellular proliferation, a complex of symptoms generally accepted as inflammation. The formation of vesicles and of scales appear as incidental—secondary phenomena. The irritation which causes the reaction may originate in the organism itself and may reach the skin by way of the lymph channels, the blood vessels, or possibly through the nerves, or may come from outside the body.

In the third chapter it is demonstrated how the reactive disturbances caused by internal irritation can be distinguished from those of external origin and how they may be altered under certain conditions. They occur partly in the course of well defined diseases, like the acute exanthemata, the granulomata, erysipelas, etc., which can be diagnosed on the strength of all the symptoms present; partly they appear in identical form under various conditions, either directly from external causes or indirectly from infectious or toxic causes. In most instances the diagnosis will have to demonstrate the cause of the reaction, but there remain a number of cases in which the cause remains unknown for the present.

The fourth chapter treats of the reactive disturbances due to external causes (artificial dermatitis), the effects of scratching, of soap and water, of irritating drugs and complicated by pyogenic infection. The combined effect of several successive or several simultaneous irritations produces a complex artificial dermatitis, commonly called eczema, usually an intense congestive hyperæmia and intense serous exudation, of diffuse distribution and of unusually long duration, with frequent relapses and accompanied by itching. The original irritation, however, may have reached the skin by way of the circulation and only later on may have attracted the external irritants. Under such circumstances a combination of the conditions due to internal as well as to external irritation may be observed.

The fifth chapter describes the reactive disturbances due to streptogenic infection of the skin from outside (erysipelas, streptogenic impetigo), the sixth, those of toxic origin (medicamentous, antitoxic, alimentary bacteriotoxic and autotoxic) through the circulation (pellagra, acute prurigo of adults, prurigo gestationis, lichen urticatus and acute prurigo of children and herpes simplex); the seventh, those of unknown origin but undoubtedly produced by way of the circulation, as they appear in pemphigus, dermatitis herpetiformis, erythema multiforme and nodosum, urticaria chronica, urticaria pigmentosa, prurigo, pompholyx. The author considers it inopportune to distinguish a dermatitis herpetiformis from pemphigus vulgaris proper on the strength of its polymorphism, the intensity of the subjective symptoms, the localization, the grouping, the appearance in successive eruptions, and its benignity, in the face of the entire absence of any knowledge of the causes and of internal complications in either disease.

The eighth chapter, which treats of the reactive disturbances accompanying the acute exanthemata, is followed by a brief one (ninth), on reactive hyperplasia of the epidermis and of the papillary layer. This is mostly the consequence of scratching and the development of the diagnosis is more or less identical with the diagnosis of itching (local and general pruritus). The characteristics of scratch marks and the hyperplasia of the epidermis and of the papillary layer (lichen simplex chron.) furnish the basis of the diagnosis. In the tenth chapter, on hæmorrhages of the skin, those of external origin are briefly considered; hæmorrhages which originate by the way of the circulation, like the reactive disturbances of the blood vessels, appear either as concomitant symptoms of well defined diseases or are due to causes at present unknown.

In chapters eleven and twelve, the diagnosis of the squamous or scaling diseases is considered, a particularly interesting class. Scaling is often connected with other processes as a secondary phenomenon; here only those diseases have been described, in which the anomalous keratinisation which produces the scaling, appears as the essential change of the skin. They are represented by several groups: morbid processes in which the anomalous scaling keratinisation is generalized or at least diffusely spread over wide areas, and in which symptoms of reactive disturbance of the blood vessels are also present (exfoliative erythrodermia), or absent (ichthyosis), and epidermidoses, that is diseases in which scaling and reactive disturbance of the blood vessels are observed in circumscribed foci. In the latter the principal changes occur in the epidermis, presenting scales, or on the palms and soles thickening of the horny layers. A comparative

description of the anatomical changes, the localization, the pathogenic course and termination of the epidermidoses in general is followed by the special diagnosis of the various diseases which form these groups: psoriasis, pityriasis in its different forms, the seborrhoids, trichophyton; the addition of lichen planus to this class is particularly commented upon and explained.

Chapters thirteen to fifteen treat of diseases in which necrosis is the prominent anatomical change. It may appear in the form of gangrene or of supuration; gangrene may be traumatic due to influences from outside or symptomatic; among the diseases of the latter class zoster has found its place. Supuration presents various clinical pictures according to the exclusive localization of pyogenic microorganisms in the epidermis, or in the cutis or in the subcutaneous tissue. Infection from the outside is the more common mode, often as a complication of the reactive disturbance of the blood vessels; the diagnosis has to investigate whether the infection is due to metastasis or to outside influences, whether it is primary or a secondary complication of some other, particularly of some itching disease.

In ulcers, chapter sixteen, in most instances the diagnosis has to demonstrate the process which is the cause of the necrosis. The next chapter, seventeen, treats of degeneration (colloid degeneration, xanthoma diabeticum, calcareous deposits). In the chapter on atrophy, eighteen, only those processes are considered which produce atrophy of all portions of the skin; among them we find lupus erythematosus and favus.

Hyperplasia (chapters nineteen and twenty) occurs as a more or less essential part of the tissue changes of the skin either as a secondary hyperplasia of the epidermis and the papillary layer, or as a hyperplasia of the connective tissue in connection with long continued or of often repeated reactive disturbances of the blood vessels (elephantiasis, etc.). In other processes the increase of tissue is the only manifest symptom, and according to the localization of the hyperplasia in the various layers of the skin and of the character of the hyperplastic tissue the clinical picture may vary a great deal, so that we find placed side by side: warts, nævi, fibroma, xanthoma and Darier's disease.

A separate chapter, the twenty-first, is devoted to sclerodermia. The three next chapters (twenty-two to twenty-four) concerning the granulomata, are of particular interest. After giving a general view of the diseases which are considered in this class, the changes in the skin which serve to establish the diagnosis are described: the character of the cell infiltration according to its localization in the corium and in the subcutaneous tissue, the distribution, color, and consistency peculiar to the various granulomata, the symptoms of retrogressive changes of the infiltration, the formation of ulcers and the variation in the tendency to ulceration, and the degree of the intensity of the accompanying reactive disturbances of the blood vessels. Other means of diagnosis are furnished by the observation of the course of the skin changes and the tendency to the involvement of neighboring tissues. Remarks on the influence of the multiplicity of the foci and on the difficulties of the diagnosis in the presence of ulceration or of consecutive elephantiasis, also a description of the changes of the epidermis covering the infiltration of the corium, conclude the first of these chapters, the others contain the consideration of the special diagnosis of the single granulomata.

The last chapters treat of the malignant neoplasms, the anomalies of pigmentation, the diseases of the hair and of the nails, of the anomalies of secretion and of some animal parasites which have not found a place in the former chapters.

As it was the author's purpose to describe the diseases of the skin from the clinical standpoint, he has considered only facts which were of some value for the diagnosis, and has used them as he found them, without regard to their source or author. Wherever he had a strong opinion of his own, he has presented it clearly and forcibly. Ostensibly according to the title the book has been written for practitioners and students, apparently for those who have not yet made the

diseases of the skin the object of special studies. They will find the introduction into dermatology much easier and simpler than in the usual text and handbooks, because they will meet only with conditions, conceptions and particularly with names and terms, with which they have already become perfectly familiar in the general pathology and with a nomenclature largely divested of the cumbersome descriptive adjectives accompanying the names of symptoms or diseases. Dermatologists may feel somewhat strange at first on entering the study of Török's book, greatly missing their favorites, the lesions, and the picturesque morphological descriptions in their usual prominent places, finding them only as parts of some anatomical process of a character well known in general pathology. It can hardly be expected that a new departure like that taken by Török will at once meet with general approval, but it ought to command the serious consideration of all dermatologists. If it is not free of flaws and errors, can in time be eliminated or corrected. One great advantage which would follow the acceptance of our author's standpoint and which has not even been mentioned by the author, would be the prospect of a great simplification of dermatological therapeutics. For with an anatomical process or change of tissue constantly before us, the trend of all treatment would naturally be toward those remedies or methods which will have influence on the anatomical process, and the treatment would be the same for the same conditions under whatever names of diseases they might be met with. We then could dispense with the long lists of specific remedies and prescriptions for every single disease, which now encumber and more or less disgrace dermatological and general medical literature.

H. G. K.

Maladies Veneriennes by F. Balzer, Médecin de L'Hopital, Saint Louis. *J. B. Baillière et Fils*. Paris, 1906.

This volume is number seven of the *Nouveau Traité de Médecine et de Thérapeutique* of Brouardel and Gilbert. The first 66 pages are devoted to blennorrhagia in man, 18 pages to blennorrhagia in women and children. Then follows a chapter devoted to general infection by the gonococcus, with summarized lines of treatment followed at the present day. Chapters on balano-posthitis, warts, and chancroid finish up the more strictly venereal diseases. The recent work upon the bacteriology of chancroid is referred to, especially the experiments of Thibierge, Ravaut and LeSourd in successfully inoculating soft chancre upon the eye-lid of a macacus from lesions and from pure cultures.

The remaining 169 pages are devoted to syphilis and are the best chapters in the book. Reference is quite complete to all the recent work upon the spirochæta pallida which is accepted as the causative agent of the disease. The chapters on hereditary syphilis are clear and concise.

Ikonographia Dermatologica, An Atlas of New and Rare Skin Diseases, Fasc. 1, Tab. I-VIII., by Albert Neisser and Eduard Jacobi. *Rebman Company*, New York.

The high state of perfection to which the three color half-tone process has been carried, renders it possible to carry out this admirable scheme of international dermatological plates. The descriptive matter accompanying each plate in the language of the author, gives all the personal charm of a case presentation, added to this the request for criticism or discussion of plates, such remarks to be published in the succeeding numbers, affords all nations opportunity to agree as to nomenclature. The cases illustrated by color plates in this number are as follows: Amicis—Gale norvegienne ou crouteuse. J. Baum—Acne urticata and urticaria perstans. Brooke—Varus nodulosus. Finger—Blastomycosis cutis chronica. Hallopeau—Nævus lymphangiomeux végétant de la hanche. Jadassohn and Lewandowsky—Pachyonychia congenita. Pospelow—Erythromelalgie. Neisser and Seibert—Lichenoider eruption mit depigmentation. All of the plate are well done, especially Hallopeau's lymphangioma and Baum's two cases.

A Ready Reference Handbook of Diseases of the Skin, fifth edition, thoroughly revised, by George Thomas Jackson, M. D. *Lea Brothers and Co.*, New York and Phila.

The accuracy, systematic arrangement, and elimination of the superfluous without detracting from the necessary, has rendered this book deservedly very popular with students. The revised fifth edition has added a number of new terms (in which the field of dermatology seems to be so prolific), new illustrations, but not too abundant, make the work the best student's reference hand book.

Atlas and Epitome of Diseases of the Skin, by Dr. Franz Mracek, Professor of Dermatology in the University of Vienna, translated by H. W. Stelwagon, M. D., Ph. D., second edition revised and enlarged. *W. B. Saunders and Co.*

The atlas of Mracek is already well known by all dermatologists for the excellence of the plates, convenience of the size, and terseness of the text. We heartily recommend this new second edition with twenty-seven new plates to all students wishing a convenient sized atlas and descriptive epitome of dermatology.

The Treatment and Prophylaxis of Syphilis by Alfred Fournier, Professor at the Faculty of Medicine, Member of the Academy of Medicine. Physician to the Saint Louis Hospital, Paris. English translation of the second edition by C. F. Marshall, M. D., F. R. C. S. *Rebman Company*, London and New York, 1906.

The book is divided into two distinct parts, the treatment of Syphilis and the Prophylaxis of Syphilis. While Professor Fournier may be accused of conservatism as regards many of the vaunted new methods of treatment, especially that of injections, he has become even more insistant upon prolonging the period of treatment. As regards the opportunist method of only treating during the existence of lesions, he is a pronounced opponent. Regarding it as a bad and dangerous form of treatment. The prolonged chronic intermittent or preventive method he considers, from his truly remarkable case records extending over thirty-five years, to realize the best curative effects and, what is more essential, the best safeguard for the future. The common method of treatment by ingestion of protoiodide and sublimate, he rather favors, although he insists upon the fact that syphilis must not be treated in a routine manner, but special indications in each case shall determine the form of using mercury. Protoiodide he gives precedence, aside from any particular indication, because better tolerated and easier handled.

In the treatment of grave forms of syphilis, the author outlines all the various forms of treatment by inunction, fumigation, soluble and insoluble salts of mercury by injection and the intravenous methods. The advantages and disadvantages of each are given clearly and without any apparent prejudice. The value and indications for iodides are clearly stated, especially when used as adjuvant to mercury in mixed treatment. A very short chapter is devoted to auxiliary medication. The style of Fournier is admirable, the book is not prolix or bulky, but somehow the reader feels that some mention might have been made of the recent work by the host of workers upon the spirochete *pallida*. The second part of the book contains a number of communications of the author to the French Academy of Medicine, clinical lectures delivered at the Lourcine and Saint Louis Hospitals, and brochures, all pertaining to the grave dangers to society of syphilis, and our duty as medical men to fight for the prophylaxis of syphilis by treatment. Sterilization of the infective foci as it were. Two chapters are devoted to the instruction of young men in the dangers of venereal diseases. The translator has done his work well and the publishers are to be congratulated upon the use of paper made of Algerian Sparto Grass. It is a pleasure to read a book so light in weight.

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DERMATITIS VEGETANS IN ITS RELATION TO DERMATITIS HERPETIFORMIS.

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THE patient, whose skin affection forms the subject of this paper, has been under the observation of several of our colleagues and ourselves during the four years in which it has developed. On account of the unusual clinical picture several diagnoses have been made, such as dermatitis herpetiformis, pemphigus vegetans, blastomycosis, etc. A careful consideration of the evolution of the eruption, and a comparison with similar conditions reported, leads us to think it is worthy of record, even though its etiology may not be made entirely clear. In the localization of the lesions, as well as in most of the salient features of the disease, it resembled closely the group of cases reported by Hallopeau,¹ Hartzell,² Jamieson³ and others. To Hallopeau is due the credit of first calling attention to the affection in a series of communications, but his opinion as to its nature has undergone some modification since his original article.⁴ Whereas, in the beginning he looked upon it as a distinct entity, in later contributions he regarded it as the suppurative form of pemphigus vegetans.⁵ Primarily, he reported the affection under the name of "Dermatite pustuleuse chronique en foyers à progression excentrique,"⁶ but subsequently added the word "végétante" to the title, and in 1898 he included the five cases observed by him under the designation of "Pyodermite végétante,"⁷ of which the following is a brief résumé:

His patients were adults in whom the disease appeared without definite cause. The initial lesions were in the neighborhood of the genitals, lips, mouth or fingers, and consisted of vesico-pustules on an inflamed base. They increased rapidly in numbers, enlarged by peripheral extension, became elevated and the central part dried into a crust, which on removal exposed a dusky, papillary surface. Without symmetry, the scalp, neck, back and extremities were affected, and all transitions between the primary pustules and phlegmon, which was quite extensive in one case, existed. In the buccal cavity the efflorescences soon became papillary. The general condition remained good and the lesions disappeared under local antiseptics, the mouth and nose being more refractory to treatment. One of his patients died from an intercurrent erysipelas. Microscopic examination revealed an epidermic proliferation with vesicle formation, œdematous papillæ and a cellular infiltration, of which 95 per cent. were eosinophiles. There was also a general eosinophilia of 16 per cent. From the pus he obtained bacilli which were not definitely classified. He concluded that *Pyodermite végétante* was a type which might develop primarily or, secondarily, in predisposed individuals in dermatitis herpetiformis or in pemphigus vegetans. If the latter, he did not consider that the complication established an identity with the two diseases mentioned, as the manner of its development and progression was by autoinoculation, while in dermatitis herpetiformis and in pemphigus vegetans, the lesions appeared simultaneously under the influence probably of some internal toxin. Neither should the vegetations following these vesicles be confounded with pyodermitis, as the latter increased in numbers, might reach enormous proportions and have an asymmetrical distribution. Finally, in contradistinction to dermatitis herpetiformis and pemphigus vegetans, the disease had a favorable prognosis and yielded to local antiseptic treatment.

Hartzell⁸ in 1901, under the title "*Dermatitis Vegetans*," reported a case in which the lesions occupied the groins, the inner side of the thighs and the legs. The two latter situations presented the objective features of a chronic eczema, of which intense itching was a marked symptom. According to the patient's statement, the eruption apparently began with pea-sized pustules on the buttocks and scrotum, which became confluent and crusted. Later it extended to the groin and thighs, but it seemed doubtful whether pustules were a part of the disease in the latter location. Vegetating lesions appeared in the groins. No pustules were ever observed by Hartzell, excepting an occasional miliary one upon the inguinal plaques. So far as

could be learned, bullæ had never been present, nor were the mucous membranes ever implicated. The patient succumbed to a catarrhal pneumonia three weeks after entering the hospital.

In 1902, Jamieson⁹ described an eruption in a child which began at the side of the nail of the left middle finger. The nail was shed and the disease then involved the back of the hand and later the head and other places. The lesions corresponded in site and development to the description given by Hallopeau. Two noteworthy features were an unpleasant odor and the absence of itching.

Also worthy of special mention is a case of dermatitis herpetiformis with pustular and vegetating lesions presented by Wickham¹⁰ before the French Society in 1891. His patient had been suffering from dermatitis herpetiformis for four years, with alternating periods of quiescence and pustular eruptions and had vegetations on his hand, perineal and scrotal regions. The lesions were deeply pigmented, papillomatous, surrounded by an epidermic collar and contained numerous abscesses. Extensive in places as the hand, where the entire surface was covered, they had the appearance of papules of variable dimensions elsewhere, as the anus. Their evolution was by eccentric progression, the point of departure being small pustules of auto-inoculable origin, which enlarged and became crusted in the center. When the crust fell off there was a vegetating pigmented surface, which by coalescence with similar plaques, produced large areas which were painful. The staphylococcus albus was isolated from the pus, and inoculations were negative. The presence in the same patient of lesions of a different aspect, Wickham contended, was to be explained not by a simple coincidence, but by the polymorphism of the eruption of dermatitis herpetiformis, and he was of the opinion that the various characteristics of his case approached those to which Hallopeau gave the name of "*Dermatite pustuleuse chronique en foyers à progression excentrique*." In the discussion Besnier, Vidal and Brocq agreed with the diagnosis.

Similarly one of us (Fordyce¹¹), published a case of dermatitis herpetiformis with vegetations in a man of sixty-six, who had had many recurrences of an eruption of vesico-pustules during a period of forty years. The attacks would disappear and he would be free from the disease except for the pigmentation left by previous lesions. When he came under observation, the legs below the knees, the lower half of the thighs and the greater part of the forearms were the seats of a confluent eruption, made up of vesicles, pustules and papules, with an offensive sero-purulent discharge. It extended to

the abdomen where there were a number of irregularly rounded plaques, the margins of which were crusted. Treatment had little effect and a short time after his admission to the hospital he developed constitutional symptoms, with another outbreak of the disease on the thighs, abdomen and back. The condition gradually improved and three weeks after he left the hospital. In a short time, however, he returned and was under treatment for another attack. He was lost sight of for about eight months, and when seen again he was cachectic looking; a papulo-vesicular and pustular eruption was present on both legs, the right leg was elephantiasic and papillary outgrowths covered the lower third of both legs and the dorsal surfaces of the feet. His appetite was fairly good and the patient said he had gained in strength. Histologically, the tissue resembled that which was obtained from the subject of this report. The identity of this case with the condition under consideration has been overlooked, probably because of the predominance of the herpetiform lesions over the pustular and vegetating ones.

The occurrence of vegetations in the course of skin affections has long been noted, and during the past ten years numerous contributions have been added to literature on this complication in impetigo contagiosa,¹² eczema,¹³ seborrhœic dermatitis,¹⁴ inguinal tropical granuloma, pyogenic granuloma, iodide and bromide eruptions, dermatitis herpetiformis, pemphigus, syphilis, tuberculosis, blastomycosis, mycosis fungoides, impetigo herpetiformis, parasitic sycosis, chronic ulcerations, *i. e.*, ulcerus cruris, epithelioma, etc.

The following history, from June 15, 1905, to November, 1905, was furnished by one of us (Gottheil) under whose care the patient first entered the City Hospital.

History. S. H., aged forty-two, clerk; no previous venereal disease. He had been in good health until the beginning of 1902, when an eruption consisting of "blisters" appeared on his scalp. A little later a similar eruption, but of larger and yellowish vesicles, came on the abdomen and then the right leg became involved. Since that time various parts of his body have been affected. The disease appeared on the forehead and spread thence over part of the face. It had been on the scalp, causing loss of hair; the penis and scrotum and the neighboring skin of the abdomen and thighs had been involved; so also had both legs from the knees down, and isolated smaller groups of lesions had appeared on various other parts of his body.

During the three and a half years that elapsed since the disease first attacked him, he had never been entirely free from it. It ap-

peared usually in different areas; the affected surfaces took a long time to heal; and long before they were well, there would be a new outbreak. In addition to other treatment, he had been X-rayed over the lower abdomen, which he thinks benefited him, and he had a burn resultant therefrom still unhealed. The diagnosis at the Skin and Cancer Hospital at that time was, he says, pemphigus vegetans.

Status præsens, June 15, 1905. Patient was in fairly good health, though feeble, and apparently much older than he claimed. Pulse, respiration, temperature and general functions normal; he was out of bed since the lesions of his eruption were all healed or healing. There was little or no hair over the front part of his scalp; and that area as well as the forehead and scalp showed very superficial cicatricial areas. These as well as other scars were, he claimed, the result of antecedent outbreaks. On the right side of his chin was an area in part cicatricial, and in part still eroded and crusted. On the neck, front and sides and over the sternum and upper half of the chest was a large, reddened and superficially cicatricial area, where the process had nearly ended, but which still showed a few ulcerated and crusted foci. The lower abdominal region, the sheath of the penis and the scrotum were the seat of a large healing ulceration. This was the X-rayed area which had very slowly been getting well during the past few months. The legs from the knees down and the upper surface of the feet and most of the toes were the seat of a hypertrophic, papillary dermatitis; the tissues were reddened, verrucous, not especially sensitive, with some foul secretion in the interstices of the masses and showed but little tendency to repair.

The patient was quite positive that all the lesions, with the exception of that on the lower abdomen and genitals, were the results of the vesicular eruption from which he had suffered.

June 20th to July 15th. A fresh attack of the eruption confirmed the patient's statements. Over several extensive areas a new crop of vesico-bullæ appeared. In spite of the large territory involved, his temperature and functions were not disturbed; he remained in bed on account of the soreness and the dressings required. The largest area involved was that of the perineum, the adjacent thigh surfaces half way down to the knees, the scrotum and penis and the pubic region. (Fig. 1.) There were large areas of eruption also on the outer surfaces of the thighs (Fig. 2) and on the left leg, and there were a few isolated vesico-bullous lesions on other parts of the body. Some new lesions also appeared on the face and in the papillomatous tissue of the right leg. At all events this latter area, which had been getting drier and flattening down, became much worse, swollen and moist, and finally showed some eroded and secreting places.

The cruro-genital eruption had a very distinctly limited margin,

especially on the thighs and buttocks. (Fig. 2.) This was also the case on the left leg; but on the outer surfaces of the thighs it was less sharply circumscribed and scattered lesions spread out far into the surrounding skin.

The individual lesions came out in irregular crops at intervals of a few days, so that by the middle of July they were present in various stages. (Fig. 4.) They began as closely aggregated minute vesicles, which in a few days became large, flat pustules, filled with a yellowish serum. Many of them were very superficial; adjacent ones would run together to form irregular bullous figures, and in some places circinate lesions were observed, a central vesicle or dried crust surrounded by a bullous ring, looking like a multiform erythema lesion. When the flaccid bullæ ruptured, or when, after drying up, the scab was removed, a circular eroded area was left behind.

August 1st, 1905. The outbreak of new vesico-bullæ ceased and the slow process of repair began. The penile sheath and the scrotum were eroded over almost their entire surfaces, and so also were the upper and inner surfaces of the thighs. The confluent bullæ made the entire surface look as if it had been subjected to a severe burn. The papillomatous condition of the left leg became more pronounced; the overgrowth was larger, redder and more tender. The left leg became the seat of a similar though less accentuated papillary growth.

October 1st, 1905. Healing progressed steadily in all the lesions but very slowly. The course was exactly like that observed in burns of the second degree.

Early in November the patient had another attack; it was very much more limited than the first one and showed no features different from those already noted.

The treatment during the six months under observation was arsenic internally, tonics and stimulants when needed, the local outbreak being treated like a burn, with wet boric acid or liquor Burrowii dressings.

When the patient was seen in March of this year (1906), (Fordyce's service), he was poorly nourished and anæmic, with scars on his face, scalp, neck, abdomen, back, genitals, and upper third of the thighs. A deep and irregular pigmentation extended from his chest to the umbilicus, below which the integument was mottled from scarring and isolated pigmented areas. He had erosions on his palate and lip, as well as partial oral atresia due to inflammatory infiltration, which had evidently extended to the subcutaneous muscular tissue. His legs were swollen, the right to twice the size of the left, making walking difficult, and the skin here presented a reddened, thickened, and exuberant appear-

ance, with miliary abscesses between the papillary growths. (Fig. 5.) New lesions appeared about the periphery of the infiltrated areas in a manner similar to those in Hallopeau's and Jamieson's cases, as small pustules on a hyperæmic base. They soon ruptured, leaving erosions which subsequently became the seat of warty outgrowths. The disease spread to the plantar surfaces of the feet, and its extension could be traced by auto-inoculation on surfaces blistered by strong ammonia to obtain cultures from the normal skin, where lesions appeared identical with those which developed spontaneously. During the four months he was under the care of the reporter there were no acute outbreaks like those met with in dermatitis herpetiformis, the only new lesions being those along the borders of pre-existing plaques.

The patient also had a bilateral conjunctivitis and a keratitis of his left eye, probably the result of auto-inoculation. His further physical examination revealed dullness over both apices of his lungs and fine sibilant râles. He had a cough, but no tubercle bacilli were found in the sputum. There was a slight systolic murmur and moderate arterial thickening. The liver was felt two inches below the free margin of the ribs. A mass of lymph nodes was present in the left triangle of Scarpa.

His temperature fluctuated between 98° and 99.6° , there being a rise of about half a degree during the afternoon. The pulse averaged about 90.

The blood examination showed hæmoglobin 75 per cent.; red cells 4,750,000; white cells 10,000, of which there were polynuclears 63 per cent., lymphocytes 9 per cent., transitional mononuclears 10 per cent., eosinophiles 17 per cent. and myelocytes 1 per cent.

The urine was amber colored, had a specific gravity of 1024 and contained a faint trace of albumin, occasionally a cast, but no sugar. His nitrogen elimination was greatly reduced, the total for 24 hours, in 1216 cc. of urine, amounting to only 5.80 grams. An accurate determination of the nitrogen intake was not made, but it was far in excess of that excreted, as he had an unnatural appetite, eating not only his own meals, but frequently those left by other patients, and in addition he sent out of the hospital for more food. Notwithstanding his overeating, he had steadily lost in weight, from 147 to 115 lbs. The decrease in the amount of nitrogen eliminated was interesting in view of the fact that similar observations had been made in cases of dermatitis herpetiformis (Crocker).

The erosions, fissures and ulcerations about the mouth and geni-

tals (Fig. 6) were extremely resistant to treatment. In spite of the use of strong silver solutions, balsam of Peru or mercurial applications, they healed slowly. The elephantiasic thickening of the legs was treated by wet bichloride dressings, aluminum acetate solutions, ointments containing ammoniated mercury and various antiseptic powders. The upper half of the infiltrated area responded to this medication; the verrucous proliferations over quite an extensive territory disappeared, but over the lower half of the leg the vegetations still persisted. He is now under X-ray treatment.

Histology. Pieces of tissue excised at different times were fixed and hardened in Müller-Formol, alcohol, Zenker's fluid and formalin 10 per cent. and stained by the various nuclear, collagenous and bacterial methods.

All the sections showed epidermic hyperplasia, the degree varying with the duration of that particular lesion. The interpapillary pegs were everywhere much increased in size and penetrated the derma as styloid or club-shaped processes, some anastomosing and extending in a reticular fashion. The prickle layer was the seat of a moderate amount of œdema and mitotic figures were rather common. The granular layer in places was normal or missing, and in other sections it was thickened. The corneous layer likewise was not constant in its appearance, the picture being a hyperkeratosis in one part, a parakeratosis in another, or again, it was thinned or capped by a crust.

The most striking feature of the epidermis was the presence of vesicles which having developed in the deepest layers (Fig. 7), enlarged and extended to the surface. Their walls were formed by rete cells which were much elongated and narrowed through three or four rows, suggesting stretching. Their contents were composed almost entirely of eosinophiles. (Fig. 8). Throughout the Malpighian layer migrated cells, isolated or in small groups, the initial point of a vesicle, were encountered. They, too, were largely eosinophiles, although there was an occasional polynuclear neutrophile.

In the corium the papillæ were correspondingly hypertrophied. They were œdematous and evidence of more or less œdema was seen in the subjacent area. Apparently perivascular in the beginning, the infiltration had a more extensive distribution in older lesions, and while dense and diffuse in the upper portions of the cutis, it was rather closely confined to the vessels below. Here again the eosinophile was the preponderating element and but few neutrophiles and

lymphocytes were present. Mast cells were very abundant in some sections and plasma cells were numerous about some of the deeper vessels. Although so thickly crowded in the pars reticularis, individual eosinophiles were scattered in the depths of the cutis and also appeared in some of the vessels. There was an active proliferation of fibroblasts. In addition there were a peri- and an endarteritis, the lumina of many of the vessels being distended, others again, narrowed or occluded. The lymph spaces were dilated.

In some regions the elastic tissue had entirely disappeared from the upper two-thirds of the corium. Approaching the deeper layers fragments or granular bits were interspersed with normal fibres. In sections in which vesicles were absent, the elastic tissue showed no change except a slight amount of granulation in the pars papillaris.

Microscopically, the appendages were normal excepting for some mucoid degeneration about the coil glands.

Careful examination for organisms revealed nothing except numerous Gram positive cocci and a very few Gram positive bacilli in the superficial layers of horny cells and in the crusts.

Smears made from turbid vesicles from various parts of the body, from the eye and from erosions about the mouth, showed Gram positive cocci and occasionally a small Gram positive bacillus, with slightly fusiform ends. The latter failed to grow on any of the media.

The bacteriological examination of material from the sites enumerated resulted in only a growth of streptococci and staphylococcus aureus and albus, sometimes pure, but more often mixed. Aerobic and anærobic cultures were made, Löffler's blood serum, plain, glucose and glycerine agar, plain and ascitic bouillon, as well as the various sugar media, having been tried. From the normal skin cultures on different media produced only the aureus. The search for blastomycetes in smears and tissue was negative.

Cultures from the blood remained sterile.

The significance of eosinophilia in dermatitis herpetiformis is not of so much importance as at one time thought; still a large percentage of these cells in the fluid contents of vesicles, as well as in the tissues of the derma, would seem to point to a special irritant which had called them forth. In addition to their presence in this disease, they have been found in pemphigus, eczema, scleroderma, psoriasis, pellagra, lupus, if widespread, urticaria, leprosy, bromide and iodide eruptions, parasitic diseases, gonorrhœa, tumors, etc. Ehrlich is quoted by Ewing¹⁵ as believing that substances which attract eosino-

phile cells may be derived from the destruction of epithelial cells, as seen in the local eosinophilia about the ulcers of lupus, after the injection of tuberculin. Furthermore, Ewing¹⁶ explains the phenomena connected with general and local eosinophilia by the same chemotactic principles that are known to control neutrophile cells. It would appear that inflammatory products attract eosinophile cells at one stage and neutrophile cells at another and more acute stage.

In its clinical and histological features, the case which we have cited is practically identical with Hallopeau's, Jamieson's, Hartzell's, and others previously reported. Whether it is to be considered an independent affection, a variety of pemphigus vegetans, a complication of dermatitis herpetiformis, the result of pyogenic infection, either directly or from the toxic products of the organisms, are questions more easily asked than answered. In the last few years more attention has been paid to this complication in dermatology, notably in the disease in question, as well as in those due to inoculation of pus organisms in seborrhœic eczema (*e.g.*, the cases of Wende and DeGroat¹⁷ and of Perrin¹⁸).

The presence of vegetations in so many affections in which pyogenic organisms are the etiological factor, suggests that they or their toxic products are concerned in the production of the condition. This would account for their occasional occurrence in eczema, impetiginous inflammations and in all skin diseases where secondary staphylogenic or streptogenic infection is met with. The older writers laid much stress on irritating discharges and secretions as significant in producing this form of epidermic hyperplasia, as in pointed condylomata about the genitals from gonorrhœa and allied conditions about the lower extremities in chronic eczema and in chronic ulceration. It would seem that in some instances where vegetations are a part of the clinical picture, that a chemical irritant might be provocative, as in the papillomatous lesions met with in certain iodide and bromide eruptions. If this could be demonstrated, it would not be necessary in every case to invoke a microbic agent to explain epithelial hyperplasia. It cannot be denied, however, that in iodide and bromide eruptions, a secondary pyogenic infection is possible if not probable. The development of vegetations in such a variety of diseases leads us to believe that it should be looked upon rather as a complication than as an essential feature.

In our case, although the grouped vesicular eruption which appeared about the scalp and face, and the lesions of the thighs and lower extremities suggested dermatitis herpetiformis to one of us

later observations rather negated such a diagnosis, for the reason that there were no acute generalized outbreaks and little or no pruritus. Then, too, the peripheral extension of the affection could be distinctly traced by auto-inoculation and the conjunctivitis and keratitis might be explained in the same manner. It cannot be denied, however, that the early lesions decidedly favored the diagnosis of dermatitis herpetiformis, and that the histological examination and the presence of eosinophile cells in the blood and vesicles strengthened this view. On the other hand, the pronounced scarring about the abdomen and genitals (probably in part due to the X-ray employed), the face and scalp from the deep-seated persistent lesions could not be accounted for on this supposition.

It would seem that there is a group of conditions which have been described under the names of impetigo herpetiformis, dermatitis herpetiformis, pemphigus vegetans and *pyodermite végétante* which have many clinical and microscopical points in common. That transition types are met with which present the features of several of these maladies is not unlikely. Pemphigus vegetans, however, is so constant in the localization of its lesions, its severe constitutional symptoms and its almost invariably fatal course that we are scarcely justified in placing it in the same category with vegetating dermatitis.

Conclusions—The case herein reported is the counterpart of *Pyodermite Végétante* of Hallopeau and the *Dermatitis Vegetans* of Jamieson and Hartzell. It presents certain analogies to dermatitis herpetiformis in its histology and its blood examination (eosinophilia). In its predilection sites, the mouth, genitals and lower extremities, it is very like pemphigus vegetans, but dermatitis vegetans in its relatively benign course is a striking contrast to the latter. If we assume that the disease in its inception was a dermatitis herpetiformis, the late persistent and vegetating lesions could be explained by reason of a secondary pyogenic infection. We are rather inclined to agree with the earlier opinion of Hallopeau, with which Hartzell and Jamieson concur, that the affection presents closer affinities to dermatitis herpetiformis than to pemphigus vegetans.

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DESCRIPTION OF PLATES.

- FIG. 1. Showing vesico-bullous eruption about the genitals and inner surfaces of the left thigh.
- FIG. 2. Showing presence of eruption on buttocks and over genito-crural region. Margins sharply limited.
- FIG. 3. Scattered vesico-bullous lesions over the thigh and leg.
- FIG. 4. Showing scarring of abdomen, grouped vesico-bullous eruption on genitals and thighs, with similar lesions on legs before the papillomatous development. Figures 1, 2, 3, and 4 from photographs taken in July, 1905.
- FIG. 5. Photograph taken in March, 1906. The skin over the legs is thickened, reddened, and the seat of a papillary growth interspersed with numerous



FIG. 1.



FIG. 2.

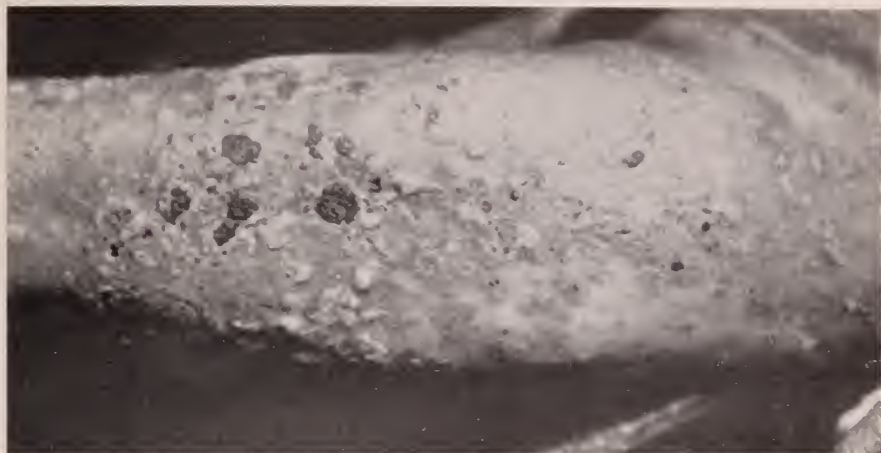


FIG. 3.



FIG. 4.



FIG. 5.

PLATE LII.—To Illustrate Dr. John A. Fordyce's and Dr. Wm. S. Gottheil's
Article.

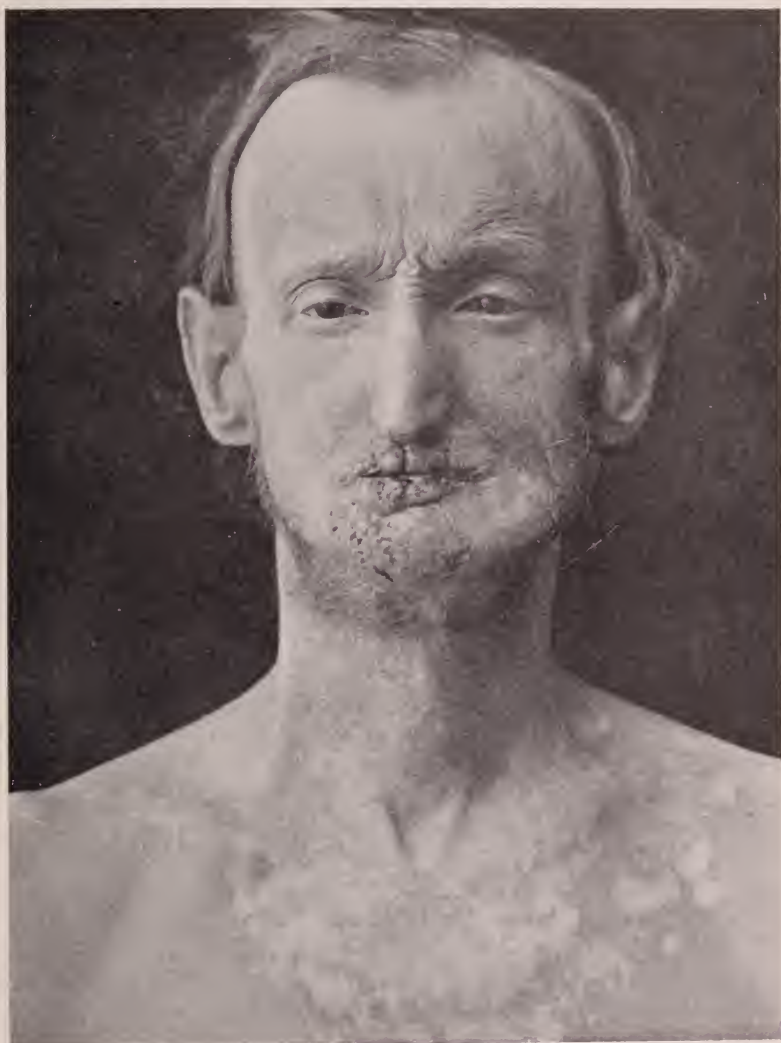


FIG. 6.

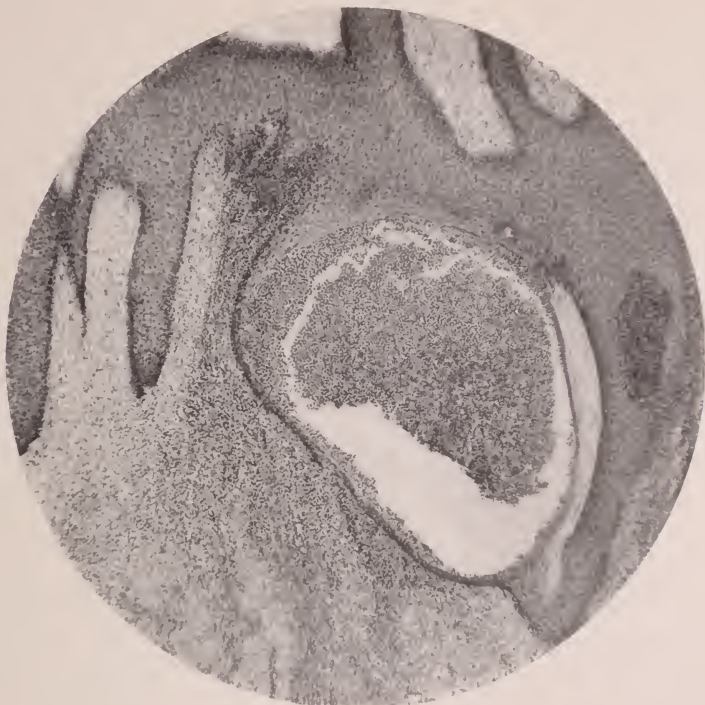


FIG. 7.

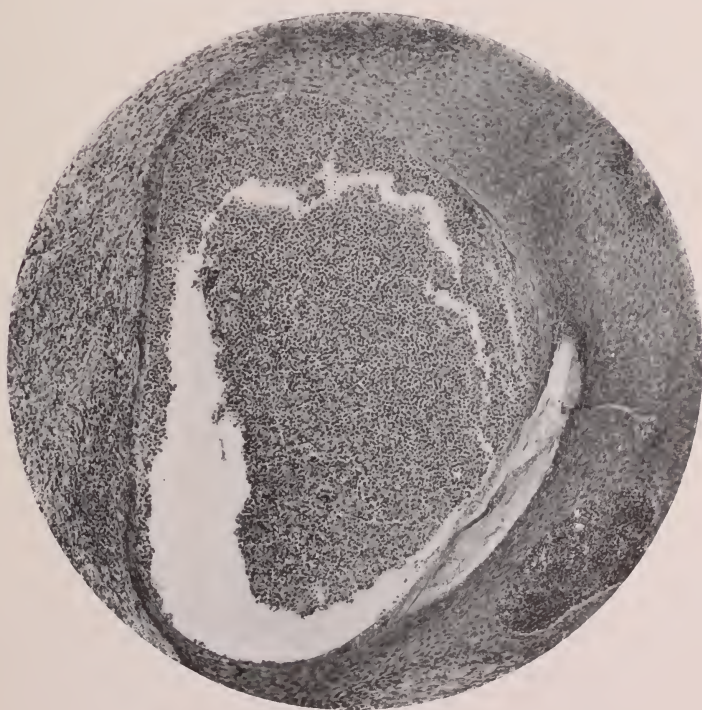


FIG. 8.

miliary abscesses. The right leg presents a pseudo-elephantiasic appearance.

FIG. 6. Showing erosions, fissures, and ulcerations about the mouth and chin. The superficial reticulated scarring about the scalp and right side of the face is not well shown in the photograph. The skin over the neck and upper part of the chest is the site of superficial scarring and pigment changes.

FIG. 7. Showing acanthosis, deep-seated vesicle in the epidermis and cellular infiltration in the derma.

FIG. 8. More highly magnified view of an epidermic vesicle, contents chiefly eosinophiles.

VEGETATING DERMATOSES; WITH REPORT OF TWO CASES.

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Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

CASE 1. Henry A., Englishman, two years in this country, age forty-two, coachman, admitted to the Cook County Hospital, October 27, 1904; family and personal history negative; patient's physical condition good. He was a rather large, fairly vigorous man, without important physical defects except that he was very deaf and had been so for many years. He had had no illnesses for many years until this attack of acute eczema.

The present trouble began about three months before entering the hospital, as an itching, red eruption of the face and hands, and subsequently developed upon other parts of the body, the description corresponding to that of an acute vesicular eczema. About two months before coming to the hospital he noticed swelling of the patches. He came into my service on January 1, 1905, two months after entering the hospital. At that time the skin disease for which he had been admitted had become slightly worse, but was otherwise unchanged since his admission. There were numerous patches of weeping eczema, varying in size from a small coin to a hand, on different parts of the body. Some of these were characteristic patches of vesiculo-pustular eczema with gradually fading, ill-defined borders in which there were many vesicles and pustules. Other areas showed slight hypertrophy of the character which gave the case its peculiar interest. In addition there were numerous areas involved in a peculiar fungoid eruption which had appeared upon previous patches of weeping eczema. The history of their development was that in the beginning there had been persistent weeping eczema with free sup-

puration and abundant crusting; that gradually upon these patches, small, red, roundish, budding masses had begun to develop and had gradually increased in size. The fully developed vegetations were exuberant masses of soft, red tissue piled up into cauliflower-like masses, in extreme instances as high as three-quarters of an inch. Some of the vegetations were covered with epidermis, but most of them were at least in part denuded of epidermis, were exuding pus abundantly, and were more or less covered with pus crusts. Their color was a bright to dark red, and they closely resembled enormous masses of exuberant granulations or plateaux of kerion. The appearance of the lesions is indicated in the accompanying photographs of the side of the face and of the area about the genitals. The eruption was symmetrical on the two sides of the face and extended down on the neck, but on the scalp there was only an eczema and no vegetations. The extent of the lesions on the lower part of the abdomen and sides of the thighs is shown in the photographs. The penis and the scrotum showed an acute papulo-vesicular eczema, but were without vegetations. In addition there were several patches from the size of a coin to that of a hand upon the extensor surfaces of the arms, upon the back, and upon the chest. There was an acute eczema of the forearms and hands, but no vegetations there.

There was itching of moderate intensity in the patches of weeping eczema, less in the vegetating patches, and on the whole this was not distressing.

There were no constitutional symptoms; the temperature was normal, the appetite good, the bowels regular, and the urine normal. I was not able to obtain blood examinations in either this case or the next.

From the resemblance of the smaller vegetating masses to agminate folliculitis or kerion, careful examination was made for ringworm fungus, but without success. Blastomycetes were not present in the pus. Smears of the pus showed streptococci and staphylococci. In cultures made from unruptured pustules, pure cultures of the staphylococcus aureus were obtained. Tissue examined in the hospital was reported to be granulation tissue. The tissue which I excised for examination was unfortunately lost.

Between January first and fifteenth he was given twelve weak X-ray exposures which were stopped by my orders. No effect upon the skin or lesions was produced by these, and as there were no changes in the lesions in the subsequent six weeks, I am sure this treatment can be thrown out as of no influence upon the course of the

Hallopeau,—*Archiv*, vol. xliii., 1898, and vol. xlv., p. 323; Hartzell,—*Jour. Cut. and Gen.-Urin. Dis.*, 1901; Jamieson,—*Brit. Jour. Derm.*, 1902, p. 407; Wende & Degroat,—*Jour. Cut. and Gen.-Urin. Dis.*, 1902; Wickham,—*Ann. de Derm. et de Syph.*, Tome II., Troisième Serie, p. 1005; Perrin,—*ibid.*, 1900.

disease. I might add that I had these exposures stopped because I had formed an opinion as to the character of the eruption, and wanted to observe its course under the use of dressings alone. The patient was then put upon simple dressings of boric acid vaseline. There was no perceptible improvement in the condition until about the first of March. From that time the lesions were thoroughly cleaned twice daily with boric acid solution, and were dressed with boric acid wet dressings. As soon as the surfaces became free from pus under these dressings, improvement began and by the first of April the face had entirely healed. The skin was slightly reddened and showed minute irregularities where the fungoid masses had been, but was clean and practically smooth. The lesions about the genitals had almost entirely disappeared. Some of the smaller lesions upon the body had not entirely disappeared, owing, I think, to less careful attention. They had, however, almost entirely healed and remained as slightly elevated patches covered by reddened skin. On April 30 the patient considered himself so nearly well that he refused to stay in the hospital longer. I have not been able to see him since, but I believe that if there had been any recurrence of the disease I should have heard from him.

CASE 2. The second patient presenting lesions of exactly the same type, was admitted to my service in the Cook County Hospital on October 6, 1905.

Jennie S., age fifteen, born in Chicago, of foreign parents. The father and mother were both living and well, and there was one healthy sister. Further family history was unobtainable. The child had always lived in poverty and squalor. She was poorly nourished, and small, and not vigorous, but the heart, lungs, kidneys, and nervous system were without demonstrable lesions. The skin was harsh and dry where it was not diseased, and the peripheral circulation poor, the hands and feet purplish and cold. The patient was of deficient intelligence. She did not know whether she had had the ordinary diseases of childhood, and no history of any previous illness except the disease of the skin could be obtained. The history of her skin trouble was obtainable because she had been in the hospital on three occasions during the previous four years on account of it.

Upon admission to the hospital there was on the face and scalp and extending down on the neck, an eczema of varying intensity, most marked on the scalp, in the eyebrows and on the eyelids, over the ears, and on the lips. This was an erythematous eczema with occasional vesicles and with greasy scales on the scalp and eyebrows, and presented the usual characteristics of seborrhoic eczema of these parts. There was a circular patch of the same type about two inches in diameter around the navel. The lower part of the abdomen, the in-

guinal folds, the inner aspects of the upper fourth of the thighs, and the vulva were covered by vegetating masses exactly similar to those described in the previous case. The lesions were exuberant, red, cauliflower-like vegetations, partly denuded of and partly covered by epidermis, and from them there was an abundant discharge of pus and serum.

There was considerable itching of the face; in the fungating lesions there was little itching, but some tenderness and, upon motion, pain. There was practically no constitutional disturbance. The temperature was normal, the appetite fair, the urine normal, and the patient while weak, was up and about. The patient left the hospital a few days after her admission, without improvement.

Examination for ringworm fungi and for blastomycetes were negative. Smears showed staphylococci and streptococci. Inoculations from unruptured pustules developed pure cultures of staphylococcus aureus. The microscopical examination of the tissues showed the following:

The tissue is composed of hyperplastic epithelium, covering a loose and highly vascular granulation tissue. The epithelial increase is confined to the cells of the rete. The stratum corneum is either lacking or is represented by cells which retain their nuclei. The stratum granulosum is normal in appearance, and the stratum lucidum is indistinguishable. The cells of the rete show numerous perinuclear vacuolations, and the intercellular processes are frequently broken and the cells separated by minute spaces, in which may often be seen one or more polynuclear leucocytes, and occasionally micrococci.

The interpapillary processes of the rete are greatly increased in extent, penetrating four to five times the normal distance into the subjacent tissue, while on the other hand, between the projections, the entire epithelium may be reduced to four or five rows of cells. The cells of the germinal layer show here and there karyokinetic figures. Appendages of the skin are entirely lacking in the sections.

The tissue underlying the epithelium corresponds to the normal corium in position only. It corresponds entirely to the structure of recent granulation tissue. Dilated blood-vessels with a lining of a single layer of young endothelial cells are very numerous, running through a stroma of new-formed connective tissue fibrillæ, in which lie numerous round cells, plasma cells, and triangular and forked connective tissue cells. Polynuclear cells and other evidences of active inflammation are absent. The bacteria are here discernible in sections stained by Weigert's method. Elastic tissue is absent.

Diagnosis—The only well defined affections of the skin which these two cases resemble at all are pemphigus vegetans, fungoid ringworm, blastomycosis, vegetating syphilides, mycosis fungoides and

drug eruptions from bromides or iodides. The first case was shown by me at the Chicago Dermatological Society. No one, I believe, had seen a duplicate of it, and all were agreed that the case was not one of any of the above suggested possible diseases, while several men gave a hint as to its true character. I think there is no doubt that all of these above diseases can readily be ruled out.

As regards pemphigus vegetans, there was no evidence whatever of the formation of bullæ at any time; the lesions did not begin as well defined oval or round patches denuded of epidermis, and the lesions that were not vegetating were patches of weeping eczema which began as, and were surrounded by, minute vesicles and pustules, like those of eczema, and entirely unlike the lesions of pemphigus. There were no lesions upon the mucous membranes, there was no prostration or cachexia, and the patient ultimately recovered. Such a symptom complex is entirely unlike that of pemphigus vegetans. The only similarity is the presence of vegetating granulations. It is most important to rule out pemphigus vegetans because in some of the previous similar cases a relationship has been assumed as possible. Ringworm and blastomycosis were ruled out by the failure in repeated attempts to find either fungus. I think that it is possible, however, that a similar clinical picture might be produced by ringworm. Mycosis fungoides and the extreme suggestion of so extensive and abundant an eruption of vegetating syphilides need no detailed consideration. There was nothing besides the presence of vegetating masses to indicate either disease, and none of the experts who saw the case entertained such a diagnosis as a possibility. Iodide and bromide eruptions could be ruled out by the precedence and coexistence of typical eczema and, in the first case, by a reliable history of the use of no internal remedies within a year. Further, the suppurating vegetating masses did not present any close similarity to the fungoid tumors from iodides or bromides.

General Considerations—Hartzell has reported, under the title "Dermatitis Vegetans," a case identical in all essential details with these two cases. The only marked difference is that in his case the itching was intense; in mine, moderate. In his case there was chronic eczema of the thighs and legs with fungating plateaux on the inner sides of the thighs and over the pubis. The histological changes were of the same character and the staphylococcus aureus was found in the lesions.

Hallopeau published in the International Atlas of Rare Skin Diseases, part third, 1889, a case under the name "Dermatite pustuleuse."

leuse chronique en foyers a progression excentrique;" later Wickham published another case as "A Rare Case of Dermatitis Herpetiformis of Duhring;" and still later Hallopeau has published other cases under the title "Pyodermatite végétante." These cases are apparently of the same character as the cases reported by Hartzell and by me. Hallopeau first maintained that they were not forms either of dermatitis herpetiformis or of pemphigus vegetans, but he has since changed his opinion and includes his case under pemphigus vegetans. Hartzell believes that some of the cases analogous to his and to Hallopeau's which have been reported by Neumann, Crocker, Hyde, and others, are to be regarded as a variety of pemphigus vegetans, while his case, Hallopeau's and Wickham's are "nearly related to, if not identical with, dermatitis herpetiformis."

It is, of course, impossible to form a satisfactory opinion of cases which one has not seen, but as to Hartzell's case it seems impossible to conceive how it can be included under pemphigus vegetans or dermatitis herpetiformis. Aside from intense itching, which is explained by the presence of eczema, there is no characteristic feature of dermatitis herpetiformis presented by the case. My cases were certainly not dermatitis herpetiformis, unless we are to use that term in so loose a way that it comprehends no definite group of symptoms. Except the fungating lesions, the lesions were those of an infected weeping eczema. In my first case the disease started as a papulovesicular eczema, on the extremities and on the face in a person in whom local irritation seemed to be the most ready explanation. The second case supervened upon a seborrheic dermatitis. My first case was seen at the Chicago Dermatological Society by Drs. Hyde, Zeisler, Montgomery, Anthony, and several others, and the possibility of dermatitis herpetiformis was not even suggested and pemphigus vegetans was promptly ruled out.

Wende and DeGroat, under the title "Vegetating Dermatitis," have reported two cases of vegetating dermatitis supervening upon seborrheic infantile eczema of the face, in which there were vegetating masses from the size of a pea up to the size of a walnut. These masses except for their variable size, were of the same clinical character as the vegetations in Hartzell's case and in my cases. Wende recognized their essential relationship to the case reported by Hartzell. The histological changes were of the same character as those in Hartzell's and in my cases, and staphylococci were obtained from the pus. Wende's careful description of the histological findings were found to cover exactly the findings in my second case (the only one ex-

amined), and Wende's cases, like my first, got well quickly under antiseptic treatment. He excluded drug eruptions, blastomycetic dermatitis, syphilis, pemphigus vegetans, and dermatitis herpetiformis.

Perrin has reported three cases similar to Wende's beginning as seborrheic eczema, which got well without scarring.

As to the essential character of the disease, Wende, without committing himself fully, indicates the possibility of the cases being the result of secondary infection. He says, "The first question is whether the dermatitis vegetans is strictly and entirely the result of eczema. This seems hardly possible because such a complication is rarely manifested. May it not be due to the circumscribed or secondary infection?" He says further, "We do not know what relation this condition bears to seborrhea or eczema, as, in many of these cases, its vegetating condition was developed independent of both, but we are inclined to the opinion that the condition was due to an infection of some kind and had nothing to do with the disease."

It seems to me that Wende's cases furnish the clinical connecting link between the large vegetating plateaux observed in my cases and in Hartzell's, and the small lesions of granuloma pyogenicum. In granuloma pyogenicum we have pea- to hazelnut-sized fungating tumors composed of exuberant granulations; red, highly vascular, and infected with staphylococci. In Wende's cases we have the same sort of exuberant granulations forming some masses like those of granuloma pyogenicum and other larger tumors like the more exaggerated, fungating, cauliflower growths seen in my cases and Hartzell's. If you will imagine the different fungating masses in Wende's cases brought together until they become confluent, you will have lesions practically identical with the lesions in my cases and Hartzell's.

The explanation of these vegetations is, in my opinion, the same in all of the cases. There occurs a weeping dermatitis in which infection takes place. This infection probably may be from various organisms; the only essential being that the infection be of moderate or slight virulence. From the bacterial toxins there is produced a low grade of inflammation with an excessive production of poorly organized granulations. This is a well recognized sequence—"proud flesh"—as old as our knowledge of suppurating wounds.

This explanation of the lesions of granuloma pyogenicum is already generally accepted. It is equally applicable, in my opinion, to the lesions of vegetating dermatitis which we have in the cases of Wende, Hartzell and myself. If that opinion is correct, the eczema

is not an essential factor in the process. The lesions might occur from any dermatosis which produced persistent weeping patches that became and remained for some time infected. In one of my cases it was a long-continued seborrheic eczema. In the other case it was a weeping eczema which was not seborrheic. As to why these lesions do not occur more frequently in eczema, there is some room for speculation. The explanation probably lies in the fact that the peculiar combination of conditions which favors the low grade of infection that is required for the formation of this excessive amount of granulations is rare.

It may be urged as an essential difference between granuloma pyogenicum and the cases of Wende and mine, that the lesions of granuloma pyogenicum are very resistant to treatment, while in our cases the lesions subsided very quickly under antiseptic treatment. The explanation of the difference is not far to seek. The typical tumors of granuloma pyogenicum persist for a long time, until a vigorous connective tissue stroma forms which cannot be gotten rid of except by destruction, while in our cases the granulations were still young and incompletely organized, were of embryonic type, and quickly gave way when the source of irritation producing them was cut off. The fungating lesions seen in these cases are, then, clinically and pathologically the same kind of masses of hypertrophic granulation tissue that are found in agminate folliculitis, kerion, tinea sycosis, and at times in various other infections of the skin. I believe the explanation given above of the vegetating lesions which I have reported, is generally accepted for these latter affections, and the same explanation probably, in my opinion, accounts for the vegetations in condyloma acuminata and in condyloma lata. It is possible, also, that the vegetations of pemphigus vegetans and those of the rare cases of dermatitis herpetiformis with vegetations are explained in the same way, but here there is more uncertainty.

If my view is correct then, we have in these various cases of dermatitis with vegetations essentially one process, and this a secondary one. The vegetations are not primary lesions, but are the result of secondary infection, with the consequent production of exuberant growth of both the connective tissue and the overlying epithelium.

And these cases, then, are not any of them pathological entities. They simply represent epiphenomena, due to infection, and they might all well be grouped under the term, vegetating dermatoses resulting from infection. In this group are specifically to be included granuloma pyogenicum, cases of vegetating dermatitis of Wende's

type, and cases of the type of Hartzell's and of mine, which, in all probability, include the French cases. The other forms of vegetating dermatitis are so clearly associated with definite diseases that nothing would be gained by trying to throw them into a new group, but it is well to remember that in the mechanism of their production they belong in the same class as the cases grouped above.

DISCUSSION.

Dr. GROVER W. WENDE said that in all cases of this kind that had come under his observation the patients had been infants. Two of his cases, to which Dr. Pusey had alluded, were already on record; he now wished to add another, presenting photographs of the same. In the first of the two recorded cases there was a preceding eczema, but in the present case there was absolutely no evidence, or history of eczema, and the possibility of drug eruption was eliminated by a careful investigation of the history of both mother and child.

The photograph of this case showed the outlines of vesico-pustules, closely corresponding in appearance to those of smallpox. These would last for four or five days and then rupture, leaving a base which would be the site of this vegetative mass. The formative lesion would invariably start in that way. The vegetative mass varied in growth. In one case it was present for over two years; in the other it was of shorter duration.

Dr. Wendé said he was still engaged in trying to ascertain the source of infection, to which he considered the condition to be due.

In his two earlier cases he had come to the conclusion that he was dealing with nothing more than one of the ordinary pus-producing organisms, although the lesion was wholly unlike that of impetigo, being more deeply seated.

Dr. FRANK H. MONTGOMERY said he had had the privilege of seeing this case at a meeting of the Chicago Dermatological Club, and at the time he had been impressed with its resemblance to Hallopeau's cases, and also to those reported by Drs. Hartzell and Wendé. The general consensus of opinion of the Chicago men was that this was a vegetative process, due to pus infection, and the manner in which the condition cleared up under simple antiseptic treatment favored that theory.

Dr. Montgomery said that in several cases of extensive seborrheic eczema remarkable lesions due to pus infection had been observed by Dr. Hyde and himself. He recalled two instances in which lesions similar to those seen in Dr. Pusey's patient, but less extensive, were present about the groins and flexures of the knee. One of these cases was first seen about a year ago, and had been sent to the hospital with the diagnosis of impetigo herpetiformis, and a fatal prognosis. The patient was covered with the lesions of seborrheic eczema, and the skin was dotted with

furuncles, pustules, crusts, semi-solid and vegetative lesions, some of them warty in appearance. The skin cleared up within a couple of months under antiseptic treatment and sulphur ointment. A few months later a second case was observed, which was very much like the first, but not so extensive.

In closing, the speaker said that he agreed with Dr. Pusey in believing these vegetative lesions were the result of pus infection under favorable conditions.

Dr. WILLIAM T. CORLETT said he had never seen any of these cases of bullous vegetating dermatitis in this country, although he recalled well-marked cases in Vienna. In connection with this subject, however, he wished to show a photograph of a vegetating eruption, which was not associated with the formation of bullæ. For many years he had been at a loss to know what to call it. While it resembled a bromide eruption, it was not a bromide eruption, as neither the patient nor its mother had taken any of that drug. There was no history of syphilis, and the probabilities are that it belongs to the class of cases, variously named, characterized as a vegetative dermatitis.

DESCRIPTION OF PLATES

FIG. 1. Dermatitis vegetans, (Wende's Case).

FIG. 2. Fungoid or vegetating dermatitis, (Case 1. Pusey).

FIG. 3. Vegetating Dermatitis, (Case 1. Pusey).

FIG. 4. Dermatitis Vegetans, (Hartzell's case).

FIG. 5. Photomicrograph from Pusey's Case 2, showing epithelial hyperplasia and exuberant granulation tissue with many blood-vessels.

A COMBINATION OF SYPHILIS AND EPITHELIOMA OF THE TONGUE.

By DOUGLASS W. MONTGOMERY, M. D.,

Professor of Diseases of the Skin, University of California.

And H. M. SHERMAN, M. D.,

Professor of Surgery, University of California.

Read before the California State Medical Society, April 17, 1906.

THE interesting points in the following case are the combination of two important diseases such as syphilis and epithelioma in the same lesion, and the elicitation of an interesting history of unsuspected syphilis.

On November 29, 1902, a patient, thirty-seven years of age, came to me complaining that she suffered from "cold sores" in the mouth, and that lately one of them had acted badly and had refused to heal. She said that she had long suffered from "cold sores,"



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.

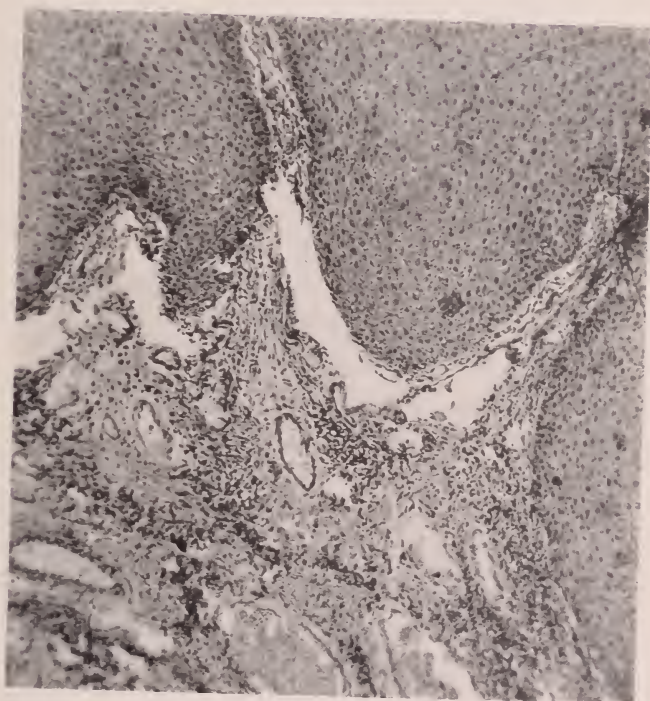
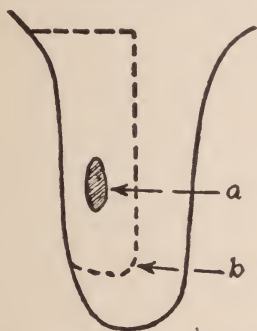


FIG. 5.

ever since her first pregnancy in fact, and that some years previously two of them had acted badly and had refused to heal, but had finally closed leaving no trace. During the first pregnancy, and coincidentally with the advent of the "cold sores," there appeared a circinate eruption on the wrists resembling "ring worm," which after a time faded out entirely.



Schematic drawing of the dorsum of the tongue, of the ulcer, and of the line of excision.¹

On showing me her tongue there was seen a large oblong ulcer lying on its dorsum to the right of the median line, and situated about midway between the base and the tip. Its long diameter was about two and one-half centimeters, and lay in the same direction as the length of the tongue. Transversely the ulcer measured about one and one-half cm. It had a dirty white moist floor, and a red raised indurated rim. It was tender, and during the past few days it had become acutely and spontaneously painful, and the pain extended up into the right ear. There was a slight enlargement

of the right submaxillary nodule, and the patient had a herpetic sore on the vermillion border of the lower lip, and another on the left border of the tongue. There was no lumpiness as of gummatous deposits either in the floor of the ulcer, or anywhere else in the tongue.

Besides telling from what she supposed the ulcer to have arisen, the patient gave me an account of the treatment it had received.

The present sore had appeared five months before, and was then about the size of a pin-head, and was persistent. It was burnt with lunar caustic by herself, but with no success as regards healing. She then consulted a physician, who also burnt it with nitrate of silver stick, but with equally bad success. She then consulted another physician who examined it microscopically, and then burnt it with some kind of caustic, but still there was no healing. In August, that is about three months before coming to me, she got X-ray treatment every day for more than two weeks, and then went camping. While on the camping trip, the ulcer healed over, and left a white area. In a short time, however, the healed surface broke down again, and she took the X-ray for seven more treatments, the ulcer in the meantime growing steadily worse. She then consulted another physician, who

¹ a. Oblong ulcer on the dorsum of the tongue. b. Line of excision sparing the tip but excising the rest of the right half of the tongue, including the ulcer.

burnt it with no better success than had attended the previous cauterizations. This list of failures is enumerated merely to show the intractable nature of the ulcer, and that it would not yield to any ordinary treatment.

I had therefore before me an ulcer, which the patient told me had arisen from a "cold sore," and the presence of two herpetic lesions, one on the edge of the tongue and one on the lip, seemed to support her statement. The size, depth and permanency of the lesion, however, showed the view to be incorrect. It also was not a traumatic ulcer due to the cauterizations it had suffered, because a sufficient time had always elapsed after each cauterization to permit healing, and it was not due to sharp projections on the patient's teeth, because there were no such projections, and besides it was situated on the dorsum of the tongue far removed from the teeth. The ulcer did not look like an X-ray burn. The diagnosis therefore lay between tuberculosis, syphilis and epithelioma. There was no history of tuberculosis in the family, and the patient was in good general health with no cough or other symptoms of tuberculosis, there were no yellow tubercle-like bodies in the floor of the ulcer or in its edge, and smears made from material taken from its surface showed no tubercle bacilli.

Indirect inquiry as regards syphilis, however, elicited the following interesting history:

The patient was married July 24, 1888, and previous to this had had "sore eyes." It was impossible to determine whether the "sore eyes" had anything to do with syphilis, but probably not. She had been pregnant in all, four times, the first pregnancy occurring about two and one-half years after marriage. The fruit of this first pregnancy miscarried at about the eighth month, was still born, and it was thought it had been dead about three weeks.

The fruit of the second pregnancy was born at term, and is still living. The subsequent history of this child will be given later.

The children of the third and fourth pregnancies were born at term, and are still living and healthy. During the fourth pregnancy the patient suffered from an ulcer over the inner side of the right tibia, which refused to heal and was finally cut out. About five years after marriage the patient had a suppurative lesion of the terminal phalanx of the left index finger that endured for three years. The nail would occasionally be shed, and the pulp of the finger would then swell up. It finally healed without leaving a scar.

I am indebted to Dr. Jas. W. Seawell for an excellent history of

the child, the fruit of the second pregnancy, who is undoubtedly frankly syphilitic.

On February 19, 1903, when Dr. Seawell took his history, this child was ten years of age. At birth it was poorly nourished and at three weeks of age had what was called acute eczema, which lasted three or four weeks. At the same time there was suppurative paronychia of nearly all the finger nails, which were subsequently shed. The child suffered from sore mouth up to the age of three years. At the age of five years he had influenza, followed by nephritis. At seven years of age he had trouble with the knee joints, which became enlarged. At the same time a grayish film began to appear on both corneas, and he became blind, first in the right eye, then in the left. He was then sent to a hospital in Portland, where he remained for six months, receiving, probably, antisyphilitic treatment. The eyes improved, and the trouble in the knees got well. Since then it has been necessary to wear glasses for astigmatism, and the mother said the child had a poor memory, and acted queerly at times. When Dr. Seawell examined the child he was still poorly nourished. The head was of the hydrocephalic type. The cranial structures, and the nose were all right. There were opaque scars on the corneas, but the retinas were all right. The teeth were Hutchinsonian. The child suffered from adenoids, and the tonsils were enlarged. The nails of the right index, middle and ring fingers and of the left middle finger were missing, and other nails were cracked and corrugated. The postcervical, submaxillary, inguinal and epitrochlear lymphatic nodules were enlarged. There was dullness, increased vocal fremitus and increased resonance over the apex of the right lung. The heart, liver and spleen were normal.

Dr. Seawell gave the child bichloride of mercury, one-sixteenth of a grain, three times a day, under which he improved. The child of the third pregnancy was found by Dr. Seawell to have a small ulcer over the tuberosity of the right tibia, which has lasted for six months. There was a history of having fallen on the knee, and that the abrasion would not heal. The ulcer, however, finally responded to local treatment.

The youngest child, a female, had snuffles when a baby, and nearly all her life, up to about a month before taking her history had suffered from "hives;" about a year before she had had two or three red papules around the wrists and on the back of both hands, which lasted for about two or three months.

That my patient was syphilitic there could be no doubt, and it

is probable that she got her syphilis during her first pregnancy, for it was then that she began to get the sores in the mouth, and that she had the circinate eruptions about the wrists, that constituted, as far as we could judge, the first symptoms of her malady. Where she got the infection we never could find, for both the patient and her husband denied on direct inquiry all knowledge of how either of them might have come by it, and people in such a grave situation as they found themselves frequently tell the truth.

That the ulcer on the tongue was syphilitic, admitted also of no doubt. It was on the dorsum, a frequent situation for syphilitic ulcers, and an infrequent one for epithelioma. It had been preceded by two similar ones that had healed under very mild treatment, or possibly no treatment at all. The ulcer did not readily bleed on being touched as epitheliomatous ulcers do, and it had not the woody hardness that epitheliomas have. The posterior rim of the ulcer was unusually firm, however, and this will be mentioned later on. The pain extending into the ear so frequently found in epithelioma, can also occur in other ulcerations of the tongue, and the enlarged lymphatic nodule under the lower jaw was of no diagnostic value. The patient's sex was against her having epithelioma, for women are much less affected with this disease of the tongue than men. But this immunity is only due to their not smoking, and does not lie in any essential resistance of the tissues. A chronic irritation will probably cause cancer in the tongue of a woman as quickly as in that of a man. As regards age, the patient had come within the cancer age, she was thirty-seven years old. There was, however, one suspicious symptom. The ulcer had a very prominent rolled rim, and this prominent and rolled appearance was particularly marked on its posterior border, where the border was also, as before mentioned, unusually firm. In addition to this there seems to be a tendency for epithelioma to arise in gummatous ulcers of the tongue.

In such cases where there is a combination of these two diseases, a great amelioration of the symptoms is secured by the administration of specific treatment. Afterwards, however, the epithelioma asserts itself, and much valuable time is lost. As Leredde has said in discussing a similar combination of diseases, a biopsy does no harm, and may clearly show where the danger lies.¹ With this in view, a piece of tissue was snipped out of the posterior hard raised rim of the ulcer, and on the same day antisyphilitic treatment was

¹ Soc. de Derm. et de Syph., *Ann. de Derm. et de Syph.*, S. III. Tome IX., 1898, p. 1140.

begun by giving the patient an injection of a one per cent. solution of bichloride of mercury.

The microscopical examination of the piece of tissue snipped out showed the epithelial cells to be of atypical shape and arrangement, and the interpapillary rete suspiciously elongated downwards. The papillæ in chronic inflammatory conditions are often elongated, and much the same picture may be found, but in the present instance it was judged to be too much like epithelioma to incur the risk, and a radical operation was advised. The operation was performed by Dr. H. M. Sherman.

As the part of the ulcer suspected of having undergone epitheliomatous degeneration lay on its posterior edge, and as the ulcer was situated on the dorsal aspect of the tongue to the right of the median line, and midway between the base and the tip, the anterior aspect of the tongue could be considered free of disease, and also comparatively free from danger of infection, because epithelioma spreads in the direction of the lymph stream, which in the present case would be downwards and backwards. The disease would therefore not so readily spread either laterally toward the left half of the tongue or anteriorly toward the tip. The left half of the tongue could therefore be spared, and the tip could be utilized for a flap. The procedure planned on this line of reasoning was found to be eminently successful.

After Dr. Sherman had removed the diseased tissue, the specimen was handed to me, and its examination was highly interesting. The specimen was first laid open by a sagittal incision carried down through the center of the ulcer. The diseased tissue forming the base of the ulcer could be well made out with the naked eye, and a piece of ground glass was laid against the cut surface and a tracing made. This showed a lardy condensation of diseased tissue deeply situated below both the anterior and the posterior extremities of the ulcer. The microscopical examination showed that these lardy infiltrations, and in fact the whole base of the ulcer, were studded with irregularly shaped miliary gummata, together with hyaline degeneration and giant cells. The gummata differed from those of tuberculosis, in being more irregular and being angular in shape, in not being so well defined, and in not having so many epithelioid cells. That no tubercle bacilli were found, although sought for, was not a point of much importance, because they are often very difficult to demonstrate in tissues that are undoubtedly tuberculous.

The microscopical examination of slides made from sections

taken from the posterior border of the ulcer, which clinically was suspected of being epithelioma, showed positively the presence of epitheliomatous infiltration in its early stages. There was epithelial infiltration deep down in the connective tissue of the tongue, with epithelial degeneration and pearl formation. Some slides would show thick sausage-like columns of epithelium penetrating deeply into the subjacent tissues. In another slide such a column would divide off into a number of branches, fading off into a sort of blue haze as seen in sections stained with hematoxylin. In still other places there were loculi in the connective tissue filled with atypical epithelial cells. In all this region the basal layer of columnar epithelium was either very poorly marked or altogether absent.

Besides the coincidence of two such interesting diseases as epithelioma and syphilis in the same lesion, there was the frequent appearance of "cold sores" on the tongue, which the patient said had first appeared during the first pregnancy, about the beginning of the year 1891, and had lasted for eleven years, or till 1902, when she began taking antisyphilitic treatment. They then promptly disappeared. In a letter received a few weeks ago from Dr. Seawell, he states they never reappeared. The initial sores in the mouth may of course have been mucous patches, but when I first saw them eleven years after the first pregnancy, they certainly did not look like mucous patches, but like "cold sores." Besides this, mucous patches do not endure so long, as they are a manifestation of early constitutional syphilis, and are not a usual symptom of its later stages. Simple herpes of the mouth is generally attributed to some derangement of the alimentary tract, usually of the stomach, and frequently appears while the patient is suffering from an infective "cold," such as "la grippe." That in the present instance, however, the herpes was in some way dependent on syphilis is borne out by the fact that the eruption suddenly ceased on commencing antisyphilitic treatment, never to return. The readiest explanation seems to be that the herpes in the present instance was a parasymphilide, brought out by some disturbance caused by the syphilitic poison, and that therefore although not a direct manifestation of syphilis, yet disappeared on the patient undergoing treatment for syphilis.

The result of the operation was good. The flap got by sparing the tip of the tongue, aided in rapid healing, and served to diminish the size of the subsequent scar, and there never has been any return of either the gumma or the epithelioma during the three years and a quarter that have elapsed since the operation.

CORRESPONDENCE.

SYPHILIS IN RELATION TO CRIME

Dr. A. Ravogli, of Cincinnati, recently contributed to the Ohio State Medical Society (Canton, May 9, 1906), an address entitled "Syphilis in Relation to Crime." In this article he connects the spreading syphilis in Europe with carnivals of blood. Crime after crime was committed all over Europe, in the form of individual and of associated criminality. The butcheries in England, at the time of the reformation, when people, nobles and rulers, were taken by crazy spells of religious asceticism, are mentioned. The execution of Sir Thomas Moore, ordered by Henry VIII., the execution of Anne Boleyn, of Sir Thomas Cromwell, of Lady Catherine Howard, etc., were but unwarranted murders to be attributed to *moral insanity*, according to Dr. Ravogli. In France, he mentions the massacre of the Huguenots in 1572, the diabolical scheme planned by Catherine de Medici and Charles IX.; the horrors of the Inquisition, and the butcheries perpetrated by the Spaniards in Flanders under the orders of Philip II. In Italy the times of Pope Clement VII., Alexander VI., and Leo X. were marked by continuous wars, insurrections, butcheries of all kinds, winding up with the war of extermination against Florence, which brought the curse on Charles V. The massacre of St. Bartholomew is cited, etc.

These, Dr. Ravogli says, were the first generations of heredo-syphilitics, and they have shown neurotic epidemics of mystic enthusiasms, of fanatical asceticism, of *demonomaniacs*, etc. "If analogy in history," he says, "can be considered as an argument in favor of our thesis, we must mention the recent massacres of Jews in Russia, etc., of Kishineff, in Kieff, Lodz, and in Odessa." He says that the population of Russia is the one most cursed with syphilis, and that in some places of the Russian empire, syphilis is continuing absolutely in the form of an endemic plague. Nothing else than brains affected with the toxins of syphilis, or brains already inflamed by syphilitic process, could plan and execute murders in so cruel and abnormal a manner.

"It seems," according to the author, "that where syphilis is most widely spread, there degeneracy is most frequent, and where degeneracy is oftenest found, there criminality fills the ranks of society. There is good reason for saying that a direct relation between syphilis and crime exists." . . . "The existence of moral insanity admits of no doubt," he says, "and that it is often the result of syphilitic alterations of the blood vessels is easy to demonstrate."

But is all this *post hoc propter hoc* as Dr. Ravogli claims? Is syphilis the cause of all that soil, which he cites, and is that why there is absence of so much Free Will?

Will you allow me to take the liberty of expressing a few thoughts on this subject of Dr. Ravogli's paper? They are not intended as interrogations to be answered—merely the thoughts of one who has closely followed the history and circumstances of epidemic syphilis in the study of anthropology of Japan and China, where it ravaged all classes; in the former country, since at least 1300 years ago, and in the latter, since 1122 B. C. In both situations there was never any more relation between the disease and historical crime than there is to-day—not so much, in fact. The evolution of religion in man's brain, everywhere from the period of his savagery to the birth of moral restraint (religious restraint), or rather the lack of that restraint, in individuals or communities (moral self-government) is alone responsible for any and every outbreak of crime, with or without any specific disease germ or its toxine to poison man's brain tissue. It was religion that taught him what crime was. Does Dr. Ravogli presume a time when *no crime* existed?

Does antiquarian research furnish opportunity for the suggestion that *time* was when no crime existed?

Does the syphilism of the syphilitic race (Japanese for example) appear upon them only when they emerge from the pre-historic past?

Do polyandrous families show venereal disease directly arising from their polyandry?

Does the anthropomorphous ape or any ape or Simian whose females menstruate have venereal disease as a tribal disease?

Does Japanese, a hybrid race syphilism, date from a period and *locus*, or periods and *loci*, different from that of the *llamas* and the Incan shepherds, or train pack-drivers of ancient Peru?

This, however, is not so important as is the matter suggested by the preceding questions. You know that those *llamas* have syphilis, and are amenable to the influence of mercury. And the shepherds lying down with the female on the cold tops of those mountains, to keep warm near their alpaca wool, contracted syphilis from those females. Even the wool is a dangerous article of commerce before sterilization by boiling.

All animate life below the *primate* man is a continuing spectacle of crime. If man is an Evolute, who is there that can assuredly say the specific cause of his crimes? Is it not a part of the Law of Demolition, just as is the operation of every other disease germ? Is it not that everything has its destroyer, and the destroyer of Good is Evil? The destroyer of health is disease. The destroyer of Happiness is Sorrow. And the *cause* of sorrow! What is that? It is the subjective that must be looked at, studied. The objective only says (in our study of man), "Look here."

If scarlet fever, whooping cough, measles, mumps, are remnants of

the transfer of evolution, why not any other disease? This comparison or example perhaps is not good, "but it will do."

The allegory of Eden, and the deductions of modern science, each see evil attending man's advent on earth. In the one, man resists and is thrown down. In the other, he combats his assailant in his upward mount, and is individually overborne from time to time continually. Each presentation shows that man has No Free Will.

"Double, double, toil and trouble;
See the cauldron boil and bubble."

—(*Witches of Endor.*)

NEW YORK,
456 W. 24th St.

ALBERT S. ASHMEAD. *

SOCIETY TRANSACTIONS

THE NEW YORK DERMATOLOGICAL SOCIETY.

344th Regular Meeting.

October 23, 1906.

The President, DR. MEWBORN, in the Chair.

Case of Erythema Induratum of the Leg. Presented by DR. FORDYCE.

The patient was a girl aged 10 years. Her father died of tuberculosis, two sisters died of pneumonia. Two years ago patient had two lesions on the calf of the leg, which healed after six months, leaving depressed scars, which have remained somewhat pigmented. They covered an area of one by one and a half inches in diameter. On the anterior surface of the leg she had two active lesions of about the same size, which began about six months previously as pea-sized papules, which extended in a peripheral manner since their onset. There were several points of superficial necrosis over these granulomatous lesions. Besides these larger patches of infiltration she had several pea-sized and smaller papules, some of which showed central softening. Tissue excised from the smaller and larger lesions showed a granulomatous infiltration about the coil glands, which in the older lesion had extended to all the layers of the derma, was necrotic in places, with here and there giant cells. The histological picture resembled that of a scrofuloderma rather than that of a lupus vulgaris.

DR. DADE thought that the lesions were deeper than they seemed. The case reminded him of Bazin's disease.

DR. JACKSON called it a case of scrofuloderma, or tuberculide.

DR. BRONSON inquired whether there had been any suppuration. He thought it a tuberculide.

* Pupil of Dr. Isaac Ray (Ray's Medical Jurisprudence) and Qualified Examiner in Insanity (State Lunacy Commission).

Dr. WHITEHOUSE thought it was scrofuloderma.

Dr. FORDYCE said that since he had seen the case there had been very little suppuration. The scar on the back of the leg suggested Bazin's disease. The lesion began in the skin, not deep down, but as a granuloma, which spread peripherally.

Tuberculosis of the Skin. Presented by Dr. MORROW.

This case was presented about a year ago before the Society, soon after an extensive operation and before the lesions had entirely healed. As will be seen from the scar tissue, the disease covered the entire abdominal surface extending from the pubic region and entire groin to the umbilicus, also the entire surface of the penile organ. A cure was effected by a thorough curetting followed by the use of the Paquelin cautery, with an occasional after treatment of the same nature for outcropping tubercles. The only evidence of the disease now seen is upon the glans penis. There lesions have recently developed and present a rather unusual appearance. The patient had been under Dr. Morrow's care at the New York Hospital, 15 years before, but passed from observation and was not again seen until September, 1905.

Dr. BRONSON thought that it was extraordinary that tuberculosis cutis, or lupus, could be so thoroughly and so easily eradicated. This was very unusual, as lupus after curetting generally breaks out again and again. You could see where the spots had been before, but there was such a total absence of lupus now that he felt doubtful if it really had been lupus.

Dr. FOX said that curetting was generally followed by cropping out again here and there, but that he thought the reason Dr. Morrow had succeeded was that he had used the curette more vigorously than is usual. When this is done tuberculosis or erythematous lupus can be radically removed, but in 999 cases out of a thousand the surface only is scraped.

Dr. SHERWELL said it certainly was a most extraordinary result, and as Dr. FOX said, it must have been due to the thorough curettage received. He believed that you must dig at such cases until you cannot go any further.

Dr. MORROW replied that the man had been placed under general anaesthesia and a thorough operation was performed. After cicatrization a half dozen or more tubercles had developed, especially upon either flank and around the umbilicus, which were again cured by curetting and cauterization, this time under local anaesthesia. There was also an ointment of subnitrate of bismuth used—more for the purpose of keeping the wounds clean than for any other reason. After this there was no recurrence. This was during last winter, and there was no further trouble until a few weeks ago, when the patient again appeared, this time with the trouble on the penis. There has been a recurrence about the glans and about the frenum from contact of the urine. The man was provided with a glass tube to use in order to protect the parts, but he broke this and others, and finally stopped using them. As long as the urine was kept away there seemed to be no recurrence. He has a stricture, which has been kept open with an instrument given to him for that purpose, and has a comparatively free passage of urine, but he said to-night that he thought the urine had begun to pass below the orifice. The lesions on the glans penis have not been curetted, but the Paquelin cautery has been used once or twice.

A remarkable feature in this case is that the man had tuberculosis of the testicle on the left side 15 years ago, when he was under Dr. Morrow's care in the New York Hospital. The testicle was removed by Dr. Wm. T. Bull. The disease instead of travelling up the cord as usual, attacked the surface of the groin. The superficial extension of the disease was promptly arrested, and there was no recurrence for some years afterward, when it began to recur, but he did nothing for it. He then came again to Dr. Morrow at St. Vincent's Hospital and was operated upon. There is no suppuration nor granulation of the lesions on the glans, and they are clean and fleshy looking. They have a most unusual, indolent appearance.

In response to an inquiry from Dr. Elliot as to whether any tubercle bacilli had been found, Dr. Morrow said that no examination had been made for that purpose. The man was much indisposed to have any scraping done on the penis.

Dr. ELLIOT then suggested a smear, and Dr. Morrow said that he would try to carry out this suggestion.

Dr. MORROW said that at first he thought that perhaps the man might have had an old syphilis which had impressed its specific character on some of these lesions, but the man denies any history of the kind.

Dr. ELLIOT said that if it was lupus it was certainly one of the most extraordinary results ever obtained from curettage.

Dr. MEWBORN suggested that it might be well to try Bier's method of producing stasis or congestion of the glans penis where it had now localized, as in curettage there would be too destructive an action. This was one of the methods spoken of by Dr. A. E. Wright in his lecture at the New York Academy of Medicine upon the opsonins as useful for encouraging the local circulation and exudation of fluids, with increased stimulation of the phagocytes, causing the absorption of the lesion.

A Hyperkeratosis of the Sole of the Foot—Possibly of Specific Origin.

Presented by Dr. FORDYCE.

The patient, a woman 48 years old, unmarried. Three years ago she was operated on for varicose veins. She had pronounced œdema of both lower extremities. The left one presented almost a pseudo-elephantiasis appearance, and the sole of that foot showed a considerable degree of hyperkeratosis which had persisted for a number of years. Mixed treatment had been given for several weeks without any marked result. The lesion was thought to be of specific nature, although resistant to treatment.

Dr. ELLIOT said that the case did not impress him as being specific, as he could see nothing to suggest syphilis. It seemed to him to be chronic eczema.

Dr. WINFIELD thought it was an eczematous condition.

Dr. WHITEHOUSE also thought that it was eczema. There seemed to be no grouping of infiltrated papules, as one would expect in syphilis. It seemed to him to be a chronic infiltration due to an eczematous condition.

Dr. BRONSON inquired whether there was any itching. He would be inclined to suspect syphilis, though there seemed to be no positive evidence of it. There seemed to be an infiltrated œdema which affected the whole leg, and syphilis might account for the whole thing, the œdema being the result of syphilitic infiltration involving the lymphatics or nerves. An indurated œdema, or elephantiasis, may result from syphilis of the foot, with an entire lack of the characteristic earmarks of syphilis, these all being masked.

Dr. FOX said that syphilis might be the cause of the swelling, but he could see none of the characteristic features upon the sole, which syphilis is almost

bound to display. There were none of the sharply defined borders nor outlying circles which would be noticeable somewhere upon the surface of the skin.

Dr. MORROW was inclined to believe the case specific in nature. The characteristic signs of syphilis, the grouping and circinate outlines spoken of might be masked by the keratotic covering, but be apparent when the scaly covering was removed. The case was especially interesting to him, as it suggested what he has always been convinced of, that the differential signs between eczema and syphilis of the palms and soles, so far as the objective appearances go, are very obscure; and without a history of syphilis he was very loth to make a differential diagnosis between the two. He now had a case under observation, almost identical in appearance with this one, where the man undoubtedly has had syphilis for ten years, the keratotic condition being very pronounced, with a thick scaly surface masking the appearance underneath. This patient had been treated with a very strong salicylic plaster for some time, which clears up the surface indications promptly, but they almost immediately reform.

He had not much faith in specific treatment from a diagnostic point of view, as he had seen many cases which were undoubtedly syphilitic yet did not respond to such treatment. The case just referred to as being under observation is such an instance. He had used intra-muscular injections of mercury, large doses of potassium iodide, and mercurial plasters had been worn continuously, the only result of the latter being to remove the covering which redevelops as soon as the plaster was removed, or within a few days. Although the patient had been under the most active and vigorous specific treatment for eight months, he did not get well, and yet Dr. Morrow had very little doubt of the specific nature of the affection.

Dr. Fox suggested that Dr. Morrow's syphilitic patient might have a non-specific eruption of the sole. He would adhere to what he had said of this woman's sole—that it presented none of the characteristic signs of syphilis, and that we must base our diagnosis upon what we see, not upon the history of the case as given by the patient. He had photographs of a number of cases of eczema and syphilis occurring upon the sole and palm, and in some of these cases no one, however expert he might be, could distinguish between them, yet some of them were unmistakably eczema, and the others unmistakably syphilis. It was perfectly possible for a syphilitic man or woman to have a non-syphilitic eruption upon the palm or sole.

Dr. MORROW inquired whether Dr. Fox would differentiate between the syphilis and the eczema by the objective features alone.

Dr. Fox replied that he never relied upon anything else.

Dr. SHERWELL asked Dr. Elliot whether he did not think that the combination of syphilitic treatment with the other would help. If he gave the treatment and then applied the ointment, would he not get quicker and better results?

Dr. ELLIOT said that he did not believe that because a man had had syphilis 12 or 20 years ago, that every eruption he might have should be ascribed to a syphilitic origin. Treatment with mercury cured a good many cutaneous conditions besides syphilis.

Dr. SHERWELL said that he knew that a man who has had syphilis can have itch, but that he thought a constitutional disease was influenced by its basic trouble.

Dr. ELLIOT said that he did not believe that because a man had had syphilis once that it should always be taken into consideration because he came again with some eruption on the body, which might be psoriasis or something else.

Dr. MORROW agreed with Drs. Fox and Elliot to a certain extent,—that it is better to make a positive diagnosis, if possible, from the objective signs. Unfortunately characteristic signs often fail which enable one to make a diagnosis of eczema of the palm or sole. The particular case to which he had referred

had outcroppings on the instep and back of the heel, behind the internal malleolus, sharply defined and circular in outline, and which disappeared under the influence of syphilitic treatment, but the lesions on the sole persisted. He had been under treatment by several physicians, and had scarcely been free from some lesion for three years.

Dr. JACKSON said that it did not impress him as being syphilis. It seemed to be an alteration of the skin probably dependent on the œdema of the leg. We see similar appearances at times with elephantiasis, or other œdematous conditions.

Dr. FORDYCE agreed with Dr. Morrow that it was possible to be deceived by objective signs. He had observed patients over a number of years with syphilis, and had seen the development of scaling eruptions on the palms and soles, which had many of the features of a chronic eczema. The well-known obstinacy of scaling specific lesions in these localities to treatment caused them not infrequently to be mistaken for other conditions.

Dr. Fox said that in some cases it was not possible to make the differentiation, but that we should try to do all that was possible in this direction.

Dr. MEWBORN said that when no effect was obtained by using mercury in the ordinary quantities, it might sometimes be obtained by using massive doses, as the palmar syphilides are very resistant just as is the condition of leucoplakia of the mouth and tongue. One of his colleagues used as much as 4 or 5 grains of salicylate of mercury at each injection, until he obtained good results, but he himself thought such doses were rather dangerous.

Dr. FORDYCE thought the comparison made by Dr. Mewborn a suggestive one, as he had observed the coincident development of leucokeratosis with scaling lesions of the palms. The resistance of both to treatment was well known.

Dr. BRONSON called attention to the fact that in chronic syphilis of the palms or soles the conditions were peculiarly favorable to the development of eczema. First, there was a predisposing influence due to the impaired vitality and increased vulnerability of the epidermis from repeated attacks of the syphilitic affection. Second, there was the direct injurious effect of the unusually long continued local application of antisyphilitic remedies. In the complication of the eczematous with the syphilitic disease there was, properly speaking, no true symbiosis, but rather an alternation between the two diseases. First one would dominate, then the other. When the eczema predominated the syphilis would be masked, and only the eczematous affection would perhaps be recognizable. As soon as by appropriate measures the eczema had in a measure been removed, the syphilitic element would reveal itself. That having in turn been alleviated by treatment, the eczema would recur. In such cases the alternating treatment was required according as one or the other affection was in the ascendant.

Bullous Dermatitis, A Case of. Presented by Dr. BRONSON.

This case had been shown at the last meeting of the Society by Dr. Bronson, and, as would be remembered, at that time the case showed much more decided inflammatory features than at present. These inflammatory features had been still more pronounced a short time before. The disease had lasted about two months altogether with marked variations. It began about the nose, according to the patient's report, which was swollen and inflamed, with some vesiculation or blistering. Soon after it spread to the body and extremities. When first seen by Dr. Bronson, three weeks after its commencement, erythema seemed the predominant feature. The eruption occupied chiefly the upper arms, the chest, and other parts of the body, and also the thighs. Upon the arms the appear-

ance was almost erysipelatous, with much swelling, dusky redness and large bullæ. Bullæ occurred abundantly on the chest and thighs as well as scattered ones, though usually grouped on other parts. The itching was intense, especially at night. There was also pronounced rigors and probably at night some fever. At this time the case seemed to correspond to an erythema multiforme bullosum. Afterwards the erythematous character was markedly abated, though bullæ varying in size from that of a pea to that of a hazel-nut continued to appear mostly upon a reddened base, but without the decided inflammatory features of the earlier attacks. This was the condition when the patient was presented a month ago. At that time the disease seemed to have much the character of dermatitis herpetiformis, which was the impression produced upon most of the members present at that time. More recently the erythema had ceased almost entirely, while the bullæ continued to appear, rising from a perfectly clear and unreddened niveau. The grouping was still pronounced and the itching distressing. Moreover, there appeared a decided bullous eruption in the mouth—one very large bulla on the inside of the upper lip, as well as an eruption upon the fauces that made the throat very sore. These lasted only a week or so. Now the disease, because of this latter outbreak, as well as the absence of inflammatory areolæ about the blebs on the skin, took on more of the aspect of a pemphigus. Within a short time (a few days ago) there had been a slight return of the erythematous manifestations, especially about the thighs. Altogether the case seemed to be an atypical one with varying aspects that at one time would correspond to bullous erythema multiforme, at another to dermatitis herpetiformis, and again to pemphigus.

Dr. WHITEHOUSE said that the case did not impress him as being a pemphigus. Of course the lesions of the throat were confirmatory of that diagnosis, although dermatitis herpetiformis lesions had been reported as occurring in the mouth, but all the other features seemed to correspond to dermatitis herpetiformis, the infiltration of the skin, the deep-seated lesions which form patches, the grouping, the pigmentation, intense itching, etc. He thought this case would have to be studied further in order to definitely classify it.

Dr. WINFIELD said that from a superficial examination he would be inclined to consider it a case of dermatitis herpetiformis. As Dr. Whitehouse had said, cases have been reported with lesions in the mouth, and he was inclined to think he had recently seen a report of a case which developed lesions in the mouth and cheeks.

Dr. ELLIOT said that he was inclined to think it was a case of dermatitis herpetiformis, although he had never seen a case with lesions in the mouth, and did not know that any such had been reported. He had never seen a case of pemphigus show the marked infiltration, the pigmentation, and the grouped papular lesions on the buttock. We do at times see urticaria accompanying a pemphigus, but it has been a frank urticaria, whereas this was not.

Dr. SHERWELL was inclined, from present appearance of case, to consider it a case, though somewhat unusual, of dermatitis herpetiformis. As instancing a change of form of bullous lesions he recalled a case very recently seen by him on the person of an old lady, now 82, in which, from the size of bullæ, the corymbose grouping, the decided erythema, anyone must and would class it at the

present time as a case of Duhring's disease. Yet, about 8 years since, and about 4 years thereafter, she had had what would be called a typical pemphigus; the bullæ at those former times were large, as big as the ordinary chestnut in some places, without erythema or zone whatever, discreet, and no part of the limbs or body exempt. From these attacks she convalesced under treatment, and is now, in spite of her advanced age, doing well, apparently recovering from present attack.

Dr. ROBINSON was confident that it was a case of dermatitis hereptiformis, and told of a case who had had an erysipelatous inflammation all over the body. There were large blebs, very cloudy, with a thin covering which burst easily. He had asked Dr. Bronson to come up and see the woman, but he had not been able to do so. It was fully ten days before he was able to make a diagnosis of dermatitis herpetiformis. The case lasted about 6 weeks in all, and many things were tried without success, until at last she was given antipyrine, and in a few days she was entirely well. The case did not look at all like a dermatitis herpetiformis at the time, but was more like a case of erysipelas.

Since that occasion he had attended her in about eight similar attacks, and every one of them yielded in a few days to antipyrine, 20 grains a day, in 4 grain doses.

Dr. DADE said that this was another example of a case that sometimes showed one feature and sometimes another. It does not now look anything like the condition shown at the last meeting; it did not itch so much, but there was more burning complained of then. When it was last presented it was accepted as a case of bullous dermatitis multiforme.

Dr. MORROW thought it was an erythema multiforme. He had presented a similar case two or three years ago to the Society. He thought that the pigmentation which seemed so persistent in this case would clear up entirely in a few weeks. Perhaps Dr. Mewborn would remember a case at the New York Hospital where the objective appearances were much like this one, which he had at first presented as a case of pemphigus, but afterwards reversed his diagnosis; the woman got entirely well. She had three different attacks, and got well each time under simple local treatment. The case was very similar to this one, only the erythematous condition was not so well marked after the breaking down of the blebs, which were very large. The woman herself likened them to clusters of malaga grapes. The diagnosis of pemphigus was excluded, and it was considered to be a case of erythema multiforme.

Dr. FOX said that he had for thirty years been trying to find out just what pemphigus is, and would be very glad if someone would make a differential diagnosis between it and dermatitis herpetiformis which was not a glittering generality, but which would apply to all cases. He did not believe that anyone present could differentiate clearly between the two classes of cases.

Dr. BRONSON said that his attitude on this point was similar to Dr. Fox's, and he did not believe that hard and fast lines could be drawn between the two conditions. Dermatitis herpetiformis has a certain vagueness of outline, and the distinction between it and pemphigus was sometimes hard to draw. Pemphigus differs chiefly in being a much graver disease, and in the comparative absence of erythema.

Dr. ELLIOT said that one of the cardinal points in dermatitis herpetiformis was the variability of the condition during an attack and in successive attacks. You do not have this variability in pemphigus, and this point should aid one in making the diagnosis.

Dr. MEWBORN inquired whether any effort had been made to ascertain if indican was present in the urine. The finding of indican in the urine of patients suffering from dermatitis herpetiformis had been described by Engman as indicating either a toxæmia due to intestinal fermentative or putre-conditions, or to the invasion of the body by some animal parasite.

Case for Diagnosis. Presented by DR. DADE.

The patient, a young mulatto, said that the eruption had existed for 10 weeks, beginning on the backs of the hands and extending up the arms, with scattered spots over the body and limbs. The eruption on the hands strongly suggests lichen planus. That on the body and arms, entirely dissimilar, looking like pityriasis rosea, in some respects a seborrhœa, and again psoriasis. The scaling on the body and arms is of the most superficial kind; there is no itching whatever.

Dr. ROBINSON suggested parakeratosis variegata.

Dr. Fox thought it might be pityriasis rosea, though he had never seen it on the hands, but he would claim again, as he had done previously before the Society, that pityriasis rosea is not confined to the chest, and does not always appear in the typical patches which some think it must show. It appears in a multitude of forms on various portions of the body, in both an acute and chronic form, and this case seemed to him more like pityriasis than anything else—the disks, the circular spots, the infiltration resembled pityriasis more than psoriasis, though the condition of the hands suggested the latter.

Dr. BRONSON inquired if anyone had ever seen a case of psoriasis in a negro.

Dr. MORROW thought it an atypical case of psoriasis, in which the scaliness was not very marked. He had seen a number of similar cases in which the scaly feature was not pronounced. This was the only feature lacking to make this a characteristic case of psoriasis.

Dr. FORDYCE said in his opinion the case was one of parakeratosis variegata. In places the lesions resembled psoriasis, in others lichen planus. It could not well be called a psoriasis, but rather belonged to the parapsoriasis affections.

Dr. Fox said that he had photographed nearly every common skin disease in the negro as well as in the white subject, but had never had an opportunity of photographing a negro with psoriasis. He said that question had been brought up at the meeting in Toronto, and cases of psoriasis occurring in the negro had been reported.

Dr. DADE said that Dr. Jackson and Dr. Fox at the clinic had thought it was psoriasis, and when he saw the hands he thought it was lichen planus, but the eruption on the body did not resemble in the least that on the hands. It certainly was not a typical psoriasis, and the patient was presented for an expression of opinion. No external treatment whatever has been given. Internally fuming nitric acid was prescribed. He began with 3 drops, and the man was now taking 5 drops three times a day, and a considerable clearing up of the arms has been noted. Hands unchanged.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

October 16, 1906.

The initial meeting of the society, for the session 1906-1907, was held in the amphitheater of Jefferson Hospital, Sansom St., above Tenth St., on Tuesday evening, October 16, 1906, at 8:30 o'clock, Doctor M. B. Hartzell, presiding.

A case of erythema nodosum was shown by Dr. C. N. Davis, occurring in a baby, two years of age, which had been mistaken by an at-

tending physician for a case of periosteitis. The condition was of three days' duration and was complicated to some extent by a dermatitis induced by the excessive application of ichthyol. The youth of the patient was the subject of comment in connection with the other features of the case.

A case of lupus vulgaris was brought to the attention of the society by Dr. Stelwagon. The patient was a colored girl, ten years of age, and gave a history of having had the condition over a period of at least seven years. She was under treatment in the wards of the Philadelphia Hospital, and had been seen by several of the members while on duty there. The disease was situated on the face, which was involved to a considerable extent. The X-ray had been used at irregular intervals, with consequent slight benefit.

A case of eczema of the legs with marked papillary hypertrophy was also exhibited by Dr. Stelwagon, occurring in a man, sixty years of age. The patient was an Alsatian by nativity, and had never been in the tropics. He gave a history of having first noticed the affection about four years previously, at which time it was a raw and weeping surface; in an attempt to control this discharge, he made a dressing composed for the most part of small pieces of sponge. Gradually he noticed that the skin of the legs became dark and thickened, which condition continued to grow worse, until it reached the enormous proportions observed when he presented himself first for treatment, a few weeks ago. The affected parts were not only thickened and hypertrophic, but were of a dark brown color, suggesting somewhat the color of melanotic sarcoma. The gross appearance presented by the condition was not unlike that of elephantiasis.

A case of Darier's disease, previously exhibited, was again shown by Dr. Stout in order to illustrate the marked improvement that had been produced by exposure to the X-ray. The affection was generalized in its distribution, and had been subjected to all accepted forms of treatment, but without any encouraging results. The X-ray had been applied, so to speak, to the soles of the feet and the interscapular region, where the disease was most marked, and after 25 exposures lasting 5 minutes each, great benefit was to be observed. The thickening and fissuring were considerably reduced.

A case of subcutaneous tumor of the left cheek was brought for diagnosis by Dr. Hirschler. The patient was a woman, sixty-five years of age, and had had the condition for at least eight years. The growth was about the size of a small English walnut, and freely movable, seemingly connected only with the skin. Surmounting its cutaneous covering were to be seen three pea-sized, reddish lesions not unlike lupus erythematosus in appearance. There did not seem to be any marked tendency on the part of the growth to increase rapidly in size. A positive diagnosis was reserved.

A case of *acne varioliformis*, was shown by Dr. Stout. The patient was a woman, thirty-five years of age, and gave a history of having had the condition for about eight years. The original lesions were papules in nearly every instance. The scarring was rather well-scattered over the face, but was observed to be unusually superficial. Dr. Hartzell remarked having seen quite a number of cases in which the initial lesions were vesicles, and later under various influences became slightly necrotic, leaving behind very superficial scarring which suggested, somewhat, dermatitis factitia. He believed this case to be in all likelihood of this group.

A case of *lupus vulgaris*, occurring in a colored woman, thirty years of age, was exhibited by Dr. Schamberg in order to show the extensive destruction of the interior of the nose. The condition had existed 22 years, and involved the right cheek and inside of the nose, entirely destroying the cartilaginous septum. This destruction of the interior of the nose had resulted in its spontaneous cure in that situation. A slight dermatitis was to be observed on the diseased area on the cheek, due to the exposure to the X-ray.

A case of tertiary syphilis was presented by Dr. Stout, which in its gross appearance showed some of the features noted in the preceding. The patient was a woman, thirty-seven years of age, and had the condition to her knowledge for about one year. She had been seen by one of the other members at a remote period and had been cautioned to continue her treatment until discharged by a physician, which precaution she had failed to observe, and its results had been disastrous to her. At this time she showed ulceration and destruction of the nose, not unlike that seen in the foregoing case of lupus. Incidentally, it may be remarked, she had been X-rayed by one of the physicians who had attended her.

A case of *pityriasis rosea* was shown by Dr. Schamberg which bore some resemblance to *eczema seborrhoicum*, especially as regards its distribution. The disease was well-marked on the face and scalp.

A burn produced by a four hour exposure to a particle of radium, having one million activity, was shown by Dr. Schamberg, which had lasted six months. Immediately after the exposure, erythema was observed; this was followed in four days by a vesicle which was later superseded by a necrotic area which has since continued. Dr. Schamberg also remarked upon the efficiency of the radium in his hands in removing verruca.

A photograph of a case of *larva migrans* occurring on the middle finger of the right hand was also shown by Dr. Schamberg.

SAMUEL HORTON BROWN,
Reporter.

REVIEW
of
DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

BACTERIOLOGY AND PARASITOLOGY.

By A. D. MEWBORN, M. D.

The Radiotherapeutics of Ringworm at the Municipal Laboratory of the City of Paris at the Hospital of Saint Louis, SABOURAUD. (*Brit. Jour. Dermat.*, 1906, p. 199.)

In an oration delivered at the annual meeting of the Dermatological Society of Great Britain and Ireland, May 23, 1906, Dr. Sabouraud gave an interesting account of his methods and results in the treatment of ringworm by radiotherapy. As the principal details of the method have already been given in detail in former articles which have been reviewed in this Journal, it is perhaps unnecessary to give them in detail. It might be well to emphasize a few points brought out in this summary. (1) The importance of not exceeding a definite total of rays traversing the skin during the time of exposure. This can be measured accurately by the use of his platino-cyanide of barium pastilles when properly handled and when sufficiently expert in using. (2) The advantages of accurate localization of the rays by means of shields for the focus tube and lead discs to cover areas already exposed. This is important so as not to miss any infected patches and so as not to expose any area more than to one seance for fear of permanent alopecia. (3) The great advantage of Sabouraud's methods is to avoid repeated sittings, and the (4) great economic results to the municipality in throwing into active hospital service beds which were reserved for ringworm and favus cases. This saving is estimated at about sixty thousand dollars a year. (5) Finally, the almost surety of being able to eradicate a parasitic disease of the scalp, so hopeless under former antiseptic methods.

Extensive Ringworm with Ulceration of the Umbilicus. J. H. SEQUEIRA (*Brit. Jour. Derm.*, 1906, p. 269.)

Sequeira describes a case of ringworm in a boy fourteen years of age, which had lasted for eight years. Following an attack of scarlet fever, three years previous to his admission to the London Hospital, an ulceration about the umbilicus had developed, which had healed and broken down again. On admission to the hospital the ulcer was about

3 by 1 and $\frac{1}{2}$ inches, with indurated undermined edges and deeply excavated purulent base. On the right wrist was a patch, the size of a penny, resembling a tubercular infection. The skin of the entire trunk was scaly with rings of papules. The scales were brownish, adherent, and showed on microscopical examination the presence of mycelium and spores, which on cultivation were identified as an ectothrix of crateriform culture. The body was covered from neck to upper thighs in the entire circumference. Dorsal surfaces of both feet and palmar and dorsal surfaces of hands. All the nails were rough, thickened, opaque, and showed the presence of fungus.

A sister of the boy, aged twenty-one years, had also been affected with the same disease since seven years of age. In her case the disease was mostly confined to the forearms, hands and side of neck. An interesting feature of the boy's case is the causation of the ulceration by the ringworm fungus, although the author admits that pus organisms might have contributed to the result.

A Case of Blastomycosis, The Results of Culture and Inoculation Experiments. JOHN T. BOWEN, M.D., AND S. B. WOLBACH, M.D.
(*Jour. Med. Research*, 1906, p. 167.)

The case which is described in this paper was presented before the Boston Dermatological Society (*JOUR. CUTANEOUS DISEASES*, 1906, p. 30), and was the first case presented before a medical society in Boston. The histopathology corresponds with that of cases shown by other American writers, i.e., great hyperplasia of epidermis, minute abscesses surrounded by epithelium, and chronic inflammatory changes in the corium. The organisms, while not difficult to find, were in small numbers, varying in size from seven to twelve microns, and found singly, in pairs, and in groups of three to five. Budding forms were found. The protoplasm stains with the ordinary nuclear stains. With Gram's method only a few granules retain the stain. These granules stain by other methods as well, and occasionally are arranged in groups suggestive of chromatin bodies. The capsules stain poorly with eosin and with Mallory's methylene blue and eosin stain usually show as faintly pink, refractory thick membranes. With Mallory's aniline blue stain for connective tissue fibrils (*Jour. Med. Research*, XIII., No. 2), the capsules stain bright blue and the protoplasm red; and this stain is perhaps the best to use for the demonstration of the organisms in suspected tissue, because of the sharp differentiation of the capsules.

Using Weigert's and Unna's elastic tissue stains, the authors found occasional bulbous ends to the degenerated elastic fibres, but nothing that by any stretch of the imagination could be confused with organisms as hinted at by Unna. The conclusion is unavoidable that Unna's case was not identical with those called cutaneous blastomycosis; or, if it was, he failed to recognize the organisms. In cultural methods the authors found

that the temperature under the incubator was better than room temperature. There is no marked fermentative action upon sugars in the culture media. In animal experiments, which are much the best means of differentiating the peculiarities of these organisms, the authors found that peritoneal injections in white mice afforded striking metastases into the lungs. In one mouse the lungs were greatly distended and rigid, forming casts of the chest cavities. The size and rigidity are due to closely packed white nodules, many of which have depressed or gray centers. Freshly crushed lung tissue shows enormous numbers of spherical organisms in the colony-like masses. Many budding forms and an occasional filamentous offshoot which must be regarded as occurring after death of the mouse.

In view of all the work done upon this disease in America, it seems absurd that Unna and Krause, in recent publications, should practically deny the existence of the disease. Our authors are rather disposed to believe with D. W. Montgomery that the organisms from the two types of cases, the "Blastomycotic" and the "Coccidioidal," are distinct varieties.

A Case of Oidiomycosis of the Skin and Subcutaneous Connective Tissue.

SAKURANE. (*Archiv. fur Dermat. u. Syph.*, 1906, p. 210.)

The author describes a case of oidiomycosis upon the face of a nine-year-old Japanese girl. The disease began in September, 1903, as a smooth tumor on the left side of the nose near the root, about 2.5 by 2 centimeters. Later on, other scattered crusted lesions appeared on the left cheek. Upon removing the crusts from some of these lesions, there was revealed a dirty gray, hard, uneven granulation tissue. The patient was admitted to hospital in Osaka in January, 1905. At that time the thick pus exuding was examined and found to contain jointed short and thick mycelium, as well as round and oval bodies about half the size of red blood cells. These round and oval bodies had capsules with highly refractive granular contents, which stained with methylene blue. In making cultures it was very difficult to get rid of the staphylococcus albus which was found to accompany the organism in the abscesses. His animal experiments were not satisfactory. In mice, producing necrobiosis, with few blastomyces; while in man the granuloma abounded in organisms.

Scabies of Animal Origin in Man. BOSSELLINI. (*Gior. Ital. d. Mal. Ven. E. della Pelle*, 1906, p. 64.)

The author describes two cases of scabies in an old man and in a boy contracted from an ass. Another case in a man contracted from a mule. In the three cases the eruption was principally upon the extensor surfaces of the arms and trunk, and was papulo-vesicular, intensely itchy, and in the boy the eruption on the legs was urticarial in type, with a tendency to form bullæ. There were no lesions between the fingers and no

burrows. Another case was in a man contracted from scraping a hog affected with a pruriginous affection of the skin. In this case the eruption started on the hands, arms, legs, and spread almost over the entire body, and was very much the same type of an eruption as in the other cases. No burrows or acari could be found after most careful search in any of the men, but the animals all revealed the presence of abundant acari. An experimental infection was carried out from scales taken from the hog and placed in the bed of a child in the hospital for ringworm. An urticarial type of eruption at once developed upon the arms, legs, and back. No burrows nor acari were found. The rash lasted ten to fifteen days, completely healing. The author resumes the facts that *sarcoptes hominis* do not produce any persistent lesions when carried to domestic animals, and that *sarcoptes equi*, indistinguishable from *sarcoptes ovis*, cause a papulovesicular eruption upon man, but never burrow or remain longer than ephemerally. *Sarcoptes suis* may cause a more or less serious cutaneous lesion in man. *Sarcoptes canis*, according to Fröhner of Berlin, causes definite burrows in man, and that he has succeeded in extracting the acarous.

Trichophytosis of the Fallow Deer Transmissible to Man (*Sur une trichophytie du Daim transmissible a l'homme*). CERESOLE. (*Ann. d. Dermat. et Syph.*, 1906, p. 743.)

A number of fallow-deer, kept in a private park of a chateau near Padua, developed a trichophytosis, characterized by isolated and confluent herpetic patches upon nose, ears, neck, back, belly, and inner sides of thighs. These patches were of various sizes up to ten centimeters in diameter, and at a distance the animals appeared covered with dried mud. The patches recently affected were slightly elevated, scaly, with broken hairs. The hairs when pulled out seemed covered with white powder. When the crusts formed on the center of a patch were detached the skin below was red, raw, and exuding. The general condition of the deer was poor; out of thirteen affected, ten died in a short time of each other.

About this time the guardian and twelve men, having contact with the animals, became affected with herpetic lesions on the face, hands, neck, and legs. The parts affected became red, swollen, and presented circular patches, rapidly developing a zone of impetiginous crusts and rather deep pustules. All the men complained of insupportable itching, general weakness, depression, and some fever. In spite of active treatment, it required from three to four months to effect a cure.

Microscopical examination showed the animals to be affected with an ectothrix trichophyton, having spores 2 to 3 μ in diameter. In cultures upon maltose-agar, at the end of 15 days, colonies were powdery, white, with radiating filaments. Colonies circular and 3 centimeters in diameter.

In ageing the colonies became gray upon the surface and yellow underneath. In young cultures the spores were round and oval, attached by sterigmata in grape-like clusters. In some places terminal chlamydospores as well as helical spirals were present.

Inoculations from cultures by rubbing on the shaved skin of rabbits and guinea-pigs produced typical circinate dermatitis with follicular suppurations. Inoculations upon the non-hairy parts of the body in children produced scaly erythematous patches, but no pustules. Lesions lasted from six to ten days, and healed spontaneously.

BOOK REVIEW

On Leprosy and Fish-Eating—A Statement of Facts and Explanations, by JONATHAN HUTCHINSON, F.R.S and F.R.C.S. *Archibald Constable & Co., London, 1906.*

Mr. Jonathan Hutchinson, the distinguished author, once more repeats here his oft-reiterated theory, which he first exposed to the scientific world in 1858, that leprosy is not spread by contagion, but by fish-eating. This now is the same argument as presented by him innumerable times since the original announcement of the "creed." The same facts are used as gave rise to his paper, "On Leprosy and its Connection with the Use of Uncooked Fish as Food," read by Dr. Abraham, in Mr. Hutchinson's absence, at the Berlin Conference, 1897. Nothing new is offered. His conclusions since his visit to South Africa, and to British India, remain scarcely modified. The studies which he devoted to the subject in South Africa have strengthened his belief that leprosy can be cured by reconstruction of red blood corpuscles, such as arsenic, a liberal diet, and especially abstinence from fish. He also is firmer in his conclusion that the primary cause of the disease in that locality, as elsewhere, was the eating of badly cured salt fish, which, being sent inland from the west and south coast of Africa to the farmers and industrial centers, spread leprosy. From his experience and continued study of leprosy in India, Mr. Hutchinson gains new support for the opinion that it was mainly lack of salt supply necessary for the proper curing of fish which, in that locality, has caused so much leprosy.

The author continues to overlook entirely the necessity for the presence in the fish of the bacillus of Hansen, or its spore. And if that bacillary factor, the necessary agent for the transmission of the disease, was ever introduced to the human body through fish as food, raw or insufficiently salted, pray how, Mr. Hutchinson, could abstinence from the same element remove from the human flesh the scientifically acknowledged to be sole factor in the causation of leprosy?

A. S. A.

OBITUARY.

ISIDOR NEUMANN.

To all of us who have studied in Vienna in the old days, it seems as if the great lights of the Dermatological world are being fast extinguished. The great Hebra has been dead many years. Not long ago Kaposi followed him, and now Neumann, too, has gone.

Isidor Neumann died on August 31, 1906, in the seventy-fourth year of his life. He was born at Misslitz, Moravia, on March 2, 1832. It will be new to most of us that his full name was Isidor Neumann von Heilwart. He took his degree of M. D. at the University of Vienna in 1858. He was made Privat-docent in Dermatology and Syphilis in 1861; Extraordinary Professor of the same subjects in 1873; and Professor of Dermatology and Director of the clinic for Syphilis in 1881. In 1903 he retired from the University by reason of the age limit.

During all the years since his graduation he has been a most active worker in his chosen fields; a master mind to whom we owe a great deal of the knowledge we have of those branches of medicine. Besides many valuable contributions to medical journals, he was the author of the following books:

Lehrbuch der Hautkrankheiten, Vienna, 1869. 5th Ed., 1880.

Atlas der Hautkrankheiten. Vienna, 1881.

Lehrbuch der venerischen Krankheiten. Vienna, 1888.

Syphilis. Vienna, 1896.

Several of these books were translated into other tongues, and appeared in English, both in London and New York.

G. T. J.

NOTICE

LA LABORATOIRE BIOLOGIQUE DU RADIUM

On July 1st a new institution was opened in Paris for the study and practical application of radium and radio-active substances. The material for this laboratory is received from the factory of A. Armet of Lille, who produces the radio-active agents from radium, pollonium, actinium, thorium, uranium, and radio-thorium, under the patronage of the Curie laboratory.

This institute, called the Laboratoire Biologique du Radium and situated at 41 Rue D'Artois, is most richly appointed for investigation and for the care of ambulants and house-patients. It contains four departments: First, a physical laboratory under the direction of M. Danne; second, a chemical laboratory; third, a laboratory of experimental medi-

cine under the care of M. Dominici; fourth, the out-patient clinic and the indoor service of M. Wickham.

Dr. Wickham has at his disposal an immense quantity of radio-active substances in the form of liquids, powders and ointments, and is thus enabled to pursue to the greatest advantage the study of the clinical possibilities of this branch of therapeutics.

NOTICE

SIXTH INTERNATIONAL DERMATOLOGICAL CONGRESS

NEW YORK, September 9-14, 1907.

LAWS

THE SIXTH INTERNATIONAL DERMATOLOGICAL CONGRESS will be held September 9th to 14th, 1907, at the Academy of Medicine, 17 West 43d Street, New York, under the following regulations:

I. The meetings will be open to the public.

II. Any member of the medical profession in good standing may become a member of the Congress by registering with the Secretary-General at the time of the meeting or previously, or with the secretaries of their respective countries. The fee for membership shall be five dollars (£1, 20 marks, 25 francs), payable to the Secretary-General in New York, or to the foreign secretaries.

III. Papers should be presented in writing in the English, French, German, Spanish, or Italian languages, and may be discussed in the language most familiar to the speaker. Twenty minutes will be allowed each person selected to present the questions proposed by the Committee, and ten minutes to readers of voluntary papers. Five minutes will be granted to any member for discussion of papers. Members desiring to present papers shall announce to the Secretary-General the title before May 1st, 1907, and shall send an abstract of the same to him before that date. A full copy of every paper presented shall be given to the Secretary of the Session immediately after it is read.

IV. Precedence in debate will be given to members who announce beforehand their desire to take part in it. Papers shall be presented in the order as given on the official program.

V. The proceedings of the Congress will be published, and each member will be entitled to a copy.

VI. Clinical Sessions will, on certain days, precede those for the presentation of papers, at which proper time shall be allowed for the for-

mal discussion of important cases. Time will also be allowed for the exhibition of drawings, paintings, photographs, models, microscopical demonstrations, and apparatus relating to dermatology.

The Organization Committee beg to express their desire that you will attend the Congress and take an active part in its proceedings.

The Themes selected for formal consideration are:

I. THE ETIOLOGICAL RELATIONSHIP OF ORGANISMS FOUND IN THE SKIN
IN EXANTHEMATA.

To be presented by Prof. W. T. Councilman, Boston.

To be discussed by Prof. Gary N. Calkins, New York.

II. TROPICAL DISEASES OF THE SKIN.

To be presented by Dr. H. Radcliffe-Crocker, London, England; Prof. G. Riehl, Vienna, Austria; Dr. William Dubreuilh, Bordeaux, France; Dr. W. R. Brinckerhoff, Honolulu; Dr. J. H. Wright, Boston.

To be discussed by Dr. C. W. Stiles, Washington, D. C.; Dr. Baldomero Sommer, Buenos Ayres, S. A.

III. A. THE POSSIBILITY OF IMMUNIZATION AGAINST SYPHILIS.

To be presented by Prof. A. Neisser, Breslau, Germany; Prof. Ernest Finger, Vienna, Austria; Dr. L. E. Leredde, Paris, France.

To be discussed by Prof. T. de Amicis, Naples, Italy.

B. THE PRESENT STATUS OF OUR KNOWLEDGE OF THE PARASITOLOGY OF
SYPHILIS.

To be presented by Prof. Erich Hoffmann, Berlin, Germany.

To be discussed by Dr. A. Buschke, Berlin, Germany; Dr. K. Herxheimer, Frankfort a. M., Germany.

A full program will be sent in June, 1907, to all who accept membership, or who signify their intention to attend the Congress. Also details concerning transportation, accommodations, registration, etc.

Please reply to

JOHN A. FORDYCE, M.D.,

Secretary-General,

80 West 40th Street,

New York City.

JAMES C. WHITE, M.D.,

President,

Boston, Mass.

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Annex

